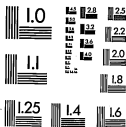




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Thomas A Edison Papers

A SELECTIVE MICROFILM EDITION

*PART IV
(1899-1910)*

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Thomas A. Edison Papers
at
Rutgers, The State University
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18 June 1981

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**Edison Portland Cement Company Records
General Ledger (1910-1912)**

This ledger covers the period January 1910-December 1912. As the account book of final entry, it summarizes transactions relating to the cement works at Stewartsville and other company facilities. Included are accounts receivable and payable; stock and bond accounts; payroll and advertising accounts; profit and loss statements; and accounts pertaining to sales, including the sale of fertilizer. A few accounts deal with paper and duck bags used for the shipment of cement. Some entries relate to poultry farming at Stewartsville. Others pertain to company sales offices in Boston, Newark, New York City, Philadelphia, Pittsburgh, and Savannah. There are also warehouse accounts for facilities in New Jersey, New York, and several southern states, including Florida, Georgia, North Carolina, and South Carolina. In addition, there are accounts with Edison and various Edison companies, including the Edison Crushing Roll Co. and the Edison Manufacturing Co. The spine is labeled "2 Genl Ledger," "1910 1912," and "Portland Cement." The book contains 324 numbered pages and an index; some pages are blank.

[REDUCTION RATIO = 16:1]

Accounts Receivable	0.
Accounts Payable	100.
Amount Bond Int	130.
Amount of Div. & Divid	135.
Advertising	207.
Accounts Receivable Ledger	115.
Do	"B" 117.
Do	"C" 119.
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Bonds, Ed. L. Cashier	13.
Bonds Receivable	59.
Bag Expense	83.
Bills Payable	111.
Bonds	143.
Bonus to Employees	124.
Boston (Julia) Office	221.
Bond Int.	241.
Bulmer, Capt, Recd. F.	260.
Blank/Plaster Cement	514.
Blank Bags	315.
Bell Wm. & Co. Stab	94.

Cooperage	87.
Cement (Whe.) Charleston	141
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Dealers (More) Duck	81
Davis (Dum) option	173
D. L. W. Rice	247
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189.

Holbrook, Wm. Egan

185.

Hunter, A. G. W. W.

261.

G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U

V
W
X
Y
Z

Ant. & Dick

230.

Ant. & Dick & Ruess

316.

I
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K
L
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N
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Y
Z

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Miller, Dick 294

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Worked up

13.

Warehouse Collateral Note 3.2

Capital Stock Common.

1912 Dec	31	Lodge #23	1	12000.00	00	Jan	1	Lat #1	1	12000.00	00
1910 Dec	31	3, de H the 1st	1	12000.00	00	Jan	1	Lat #1	1	12000.00	00
1912 Dec	31	Lodge #23	1	12000.00	00	Jan	1	Lat #1	1	12000.00	00

Patents & Trademarks

1910		1911	
Jan. 1	Led. #1	8 1000000000	Dec. 31
			Ledger #3
			3 1200000000

Ans. M. L. Sales Officer

[illegible]

Harry F. Miller, Pres.

1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231

Bond Discount

1914	1912
Jan. 1	Led. #1
16	31,500.00
Dec. 31	Ledger #3
8	31,500.00

Works Account

1914	1912
Jan. 1	Led. #1
1	34. 224,580.97
2	101. 22. 18,815.16
31	9. 18,815.16
"	53. 20,577.29
"	30. 20,577.29
Feb. 26	111. 20,577.29
38	20. 20,577.29
"	59. 11.50
"	60. 37,888.72
Mar. 31	39. 91,011.49
"	67. 46,255.58
Apr. 18	73. 352.3
20	75. 46,115.22
30	59. 94,718.09
"	81. 253,248.78
"	84. 61,377.58
May 1	140. 253,248.78
31	73. 72,009.59
"	90. 49,312.32
"	194. 70. 194. 70
"	88. 88. 88
Jun. 22	157. 25,479.4
7	71. 71. 71
30	89. 86,866.2
"	78. 48,822.77
July 21	167. 17,474.71
31	103. 93,245.89
Aug. 21	102. 11,422.62
31	119. 96,554.38
"	116. 11,422.62
Sept. 12	177. 11,422.62
20	103. 11,422.62
31	110. 11,422.62
Oct. 31	109. 11,422.62
Nov. 31	108. 11,422.62
Dec. 31	107. 11,422.62
Jan. 7	106. 11,422.62
14	105. 11,422.62
21	104. 11,422.62
28	103. 11,422.62
Feb. 4	102. 11,422.62
11	101. 11,422.62
18	100. 11,422.62
25	99. 11,422.62
Mar. 4	98. 11,422.62
11	97. 11,422.62
18	96. 11,422.62
25	95. 11,422.62
Apr. 1	94. 11,422.62
8	93. 11,422.62
15	92. 11,422.62
22	91. 11,422.62
29	90. 11,422.62
May 6	89. 11,422.62
13	88. 11,422.62
20	87. 11,422.62
27	86. 11,422.62
Jun. 3	85. 11,422.62
10	84. 11,422.62
17	83. 11,422.62
24	82. 11,422.62
Jul. 1	81. 11,422.62
8	80. 11,422.62
15	79. 11,422.62
22	78. 11,422.62
29	77. 11,422.62
Aug. 5	76. 11,422.62
12	75. 11,422.62
19	74. 11,422.62
26	73. 11,422.62
Sept. 2	72. 11,422.62
9	71. 11,422.62
16	70. 11,422.62
23	69. 11,422.62
30	68. 11,422.62
Oct. 6	67. 11,422.62
13	66. 11,422.62
20	65. 11,422.62
27	64. 11,422.62
Nov. 3	63. 11,422.62
10	62. 11,422.62
17	61. 11,422.62
24	60. 11,422.62
Dec. 1	59. 11,422.62
8	58. 11,422.62
15	57. 11,422.62
22	56. 11,422.62
29	55. 11,422.62
Jan. 5	54. 11,422.62
12	53. 11,422.62
19	52. 11,422.62
26	51. 11,422.62
Feb. 2	50. 11,422.62
9	49. 11,422.62
16	48. 11,422.62
23	47. 11,422.62
Mar. 1	46. 11,422.62
8	45. 11,422.62
15	44. 11,422.62
22	43. 11,422.62
29	42. 11,422.62
Apr. 5	41. 11,422.62
12	40. 11,422.62
19	39. 11,422.62
26	38. 11,422.62
May 3	37. 11,422.62
10	36. 11,422.62
17	35. 11,422.62
24	34. 11,422.62
31	33. 11,422.62
Jun. 7	32. 11,422.62
14	31. 11,422.62
21	30. 11,422.62
28	29. 11,422.62
Jul. 5	28. 11,422.62
12	27. 11,422.62
19	26. 11,422.62
26	25. 11,422.62
Aug. 2	24. 11,422.62
9	23. 11,422.62
16	22. 11,422.62
23	21. 11,422.62
30	20. 11,422.62
Sept. 6	19. 11,422.62
13	18. 11,422.62
20	17. 11,422.62
27	16. 11,422.62
Oct. 4	15. 11,422.62
11	14. 11,422.62
18	13. 11,422.62
25	12. 11,422.62
Nov. 1	11. 11,422.62
8	10. 11,422.62
15	9. 11,422.62
22	8. 11,422.62
29	7. 11,422.62
Dec. 6	6. 11,422.62
13	5. 11,422.62
20	4. 11,422.62
27	3. 11,422.62
Jan. 3	2. 11,422.62
10	1. 11,422.62
17	0. 11,422.62
24	0. 11,422.62
31	0. 11,422.62

Works acct.

Dec. 31	Balance	17	14990993	Dec. 31	Journal	198	22011
					" Geo. L. Co.	"	159914
					" The Phil. Press	"	787703
					" Gardner	"	1536222
					" Farm 7c	199	3067287
					31 Ledger #3	9	1123260
			14990993				14990993

Ed. L. Bixler, Cashier

Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16								

Duck Bay Purchases

Jan	1	Left	423.855	51.	787.4812	June	30	Salad	2.509109		
Mar.	31		173.819	68.	4.37849	"	30	Butt.	537255	100.	450200.58
Apr.	30		145.000	87.	24.2758	"					4113555
May	31		186.000	92.	48.52258						
June	30		145.899	98.	64.82258						
"		Butt.	142.2412								
			294.5455		54.65578				294.5455		54.65578
July	1	Book	597.258		43.52030	June	30	Salad	2.509109		
	31		178.024	108.	67.78889	"	30	Butt.	537255		
Aug.	31		196.000	116.	68.28399	"					
Sept.	30		155.486	125.	69.29765	"	Journal			156.	26790.99
"		Butt.	326.1202								
			8659.001		71.61789				3585.001		91.61789
Jan.	1		585.020		54.82670	June	30	Salad	2.669670		
Feb.	28		24.000		5.72000	"					
Mar.	31		200	188.	53.1885	"	30	Butt.	410.802		38998.69
Apr.	30		51.540	199.	50.2140	"					
May	31		415.837	212.	40.64271					224.	65998.48
June	30		70.000	222.	1.540851						
"		Butt.	1318.326								
			8072.252		10.447717				8072.252		10.447717
July	1	Butt.	410.302		33.77569	Dec.	30	Salad	2.630244		0.00
	31		150.000	253.	14.70000	"	30	Butt.	10.585		0.00
Aug.	31		70.000	11.	63.0000	"	30	Salad	94.137	65.	44633.01
Sept.	30		290.899	63.	28.50819						
"		Butt.	461.504		0.00						
"		Butt.	2384.501		0.00						
		Butt.	65		5586.22						
			3627.206		9.463301				3627.206		9.463301
Jan.	1	Int.	976.137		9.463301	June	30		36.040	125.	34339.2
June	30		36.141	126.	9.14477	Dec.	31	Salad	6367.737	50.	0.00
July	31		22.4078	139.	14.24824	"	30	Butt.	44.051		0.00
Aug.	31		69.580	150.	1.628764	"	30	Salad	77.64	100.	73733.3
Sept.	30		189.663	162.	12.68377	"	30	Butt.	15.247		138162.86
Oct.	31		86.126	172.	78.82704						
Nov.	30		12.2342	184.	10.928789						
Dec.	31	Butt.	340.128	35.	0.00						
"		Butt.	4.441	78.	0.00						
"		Butt.	28.461	78.	0.00						
"		Butt.	111.655	173.	1.4312304						
			6526.491		14876.6761				6526.491		14876.6761

Duck Bags Returned 2nd of 3

[illegible]

Poultry Exp.
1912

1912	30	Korke	184	34589	Dec 31	Ledger #3.	140	56721
1912	31	"	195	22132				
				62117				
				56721				

Duck Bay Sales

1911	Jan	30	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197	100	2,208,197
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Bills Receivable

Jan	1	Ref #1	54	604.89	1910	1	to Henry D. B.	45	327.21
	28	Bank	100	100.00	1910	11	to John H. H.	47	200.00
	31			150.00		12	to Wm. H. H.	49	100.00
	31	Banking	12	200.00		13	to Cash	51	100.00
Feb	28	500.00	15	150.00		14	to James H. H.	52	100.00
May	31	200.00	17	100.00		15	to W. H. H.	53	100.00
June	30	100.00	19	100.00		16	to Cash	54	100.00
July	31	100.00	20	100.00		17	to Cash	55	100.00
Aug	31	100.00	21	100.00		18	to Cash	56	100.00
Sept	30	100.00	22	100.00		19	to Cash	57	100.00
Oct	31	100.00	23	100.00		20	to Cash	58	100.00
Nov	30	100.00	24	100.00		21	to Cash	59	100.00
Dec	31	100.00	25	100.00		22	to Cash	60	100.00
						23	to Cash	61	100.00
						24	to Cash	62	100.00
						25	to Cash	63	100.00
						26	to Cash	64	100.00
						27	to Cash	65	100.00
						28	to Cash	66	100.00
						29	to Cash	67	100.00
						30	to Cash	68	100.00
						31	to Cash	69	100.00
						32	to Cash	70	100.00
						33	to Cash	71	100.00
						34	to Cash	72	100.00
						35	to Cash	73	100.00
						36	to Cash	74	100.00
						37	to Cash	75	100.00
						38	to Cash	76	100.00
						39	to Cash	77	100.00
						40	to Cash	78	100.00
						41	to Cash	79	100.00
						42	to Cash	80	100.00
						43	to Cash	81	100.00
						44	to Cash	82	100.00
						45	to Cash	83	100.00
						46	to Cash	84	100.00
						47	to Cash	85	100.00
						48	to Cash	86	100.00
						49	to Cash	87	100.00
						50	to Cash	88	100.00
						51	to Cash	89	100.00
						52	to Cash	90	100.00
						53	to Cash	91	100.00
						54	to Cash	92	100.00
						55	to Cash	93	100.00
						56	to Cash	94	100.00
						57	to Cash	95	100.00
						58	to Cash	96	100.00
						59	to Cash	97	100.00
						60	to Cash	98	100.00
						61	to Cash	99	100.00
						62	to Cash	100	100.00

Bills Receivable

Set	Balance	61.	10	656.64	Set	6	Cash	36.	216.82
19	Bundick	45	36	145.79	7	"	"	168.83	
Mar	31	2100	47	68.58	8	"	2. D. Smith	37.	46.66
Apr	30	"	48	68.58	9	"	"	75.00	
May	31	"	49	68.58	16	"	"	32	518.52
June	30	"	2	19146.27	18	"	"	44.	20.00
					8	"	"	10.00	
					10	"	"	34.36	
					15	"	"	50.	20.25
					17	"	"	51.	13.80
					18	"	"	20.93	
					21	Notes Recd	180.	1635.25	
					28	Payroll	54.	818.00	
					36	Payroll	55.	146.83	
					"	Donations	"	200.00	
					"	Wages & Sal	"	23.25	
					30	Payroll	56.	78.12	
					31	Payroll	"	48.48	
Apr	"	"	54	50.00					
"	"	"	"	20.93					
"	"	"	"	20.30.80					
"	"	"	59	10.00					
"	"	"	"	100.00					
"	"	"	"	144.08					
"	"	"	"	200.00					
"	"	"	64.	81.28					
"	"	"	"	177.04					
"	Notes Recd	197.	16	687.20					
May	"	68.	"	825.88					
"	"	69.	"	875.25					
"	"	72.	"	225.00					
"	"	78.	"	167.99					
June	9	Notes Recd	214.	1771.23					
"	"	Donations	215.	537.8					
"	Geo D. Haddock	218.	"	863.					
"	Donations	56.	"	101.87					
"	Woodbury	57.	"	80.00					
"	W. D. Owens	"	"	146.96					
"	Ed. Hanson	59.	"	50.00					
"	Donations	70.	"	166.57					
"	R. J. Owens & Co	"	"	176.95					
"	Donations	"	"	153.45					
"	W. M. Thompson	66.	"	79.13					
"	W. M. Hansen	97.	"	128.49					
"	J. J. Accan	119.	221.	148.34					
"	N. O. W. H. H. H.	99.	"	230.00					
"	W. D. H. H. H.	100.	"	329.46					
"	Balance			9486.534					

Bills Receivable

July	13	Balance	4	2645.58	July	18	P. B. Green	107.	100.00
	31	Green, Recd	4	68.82	19	Green, Recd	108.	2154.43	
Aug.	30	"	6	2645.58	20	Green, Recd	110.	300.00	
Sept.	30	"	7	2645.58	21	Green, Recd	227.	1645.58	
Oct.	31	"	8	2645.58	22	Green, Recd	111.	208.27	
Nov.	30	"	10	2645.58	23	Green, Recd	"	100.00	
Dec.	30	"	12	2645.58	24	Green, Recd	112.	300.00	
					25	Green, Recd	"	1703.46	
					26	Green, Recd	2.	309.42	
					27	Green, Recd	7.	585.67	
					28	Green, Recd	11.	750.00	
					29	Green, Recd	12.	585.81	
					30	Green, Recd	4.	500.00	
					31	Green, Recd	4.	176.28	
					32	Green, Recd	4.	500.00	
					33	Green, Recd	14.	161.19	
					34	Green, Recd	16.	1000.00	
					35	Green, Recd	"	348.97	
					36	Green, Recd	18.	1279.07	
					37	Green, Recd	20.	3000.00	
					38	Green, Recd	22.	1480.00	
					39	Green, Recd	"	60.00	
					40	Green, Recd	28.	1000.00	
					41	Green, Recd	"	157.50	
					42	Green, Recd	14.	1372.72	
					43	Green, Recd	15.	10588.19	
					44	Green, Recd	32.	7469.25	
					45	Green, Recd	51.	1714.507	
					46	Green, Recd	38.	182.23	
					47	Green, Recd	39.	119.55	
					48	Green, Recd	4.	1200.477	
					49	Green, Recd	47.	100.00	
					50	Green, Recd	49.	321.80	
					51	Green, Recd	55.	962.0	
					52	Green, Recd	"	100.00	
					53	Green, Recd	56.	550.8	
					54	Green, Recd	47.	1682.541	
					55	Green, Recd	57.	1174.4	
					56	Green, Recd	"	160.87	
					57	Green, Recd	51.	6750.47	
					58	Green, Recd	55.	3439.71	
					59	Green, Recd	"	722.80	
					60	Green, Recd	"	1643.5071	

Bills Receivable

Jan.	Balance	12	280.42	Jan 13	Cash	77.	1455.3
Feb	31	15	276.25	17	"	78.	84.52
Mar.	29	16	527.19	23	"	79	2336.04
Apr.	30	17	687.42	25	"	80	4000.00
May	31	18	7768.22	26	"	81	2000.00
June	29	19	236.05	27	Notes Recd 3505	82	1052.51
July	31	20	183.14	28	Cash	83	247.81
Aug.	31	21	1912.46	29	"	84	144.38
		22	2532.57	30	"	85	2500.04
		23		31	"	86	144.35
		24		1	"	87	8000.00
		25		7	"	88	750.40
		26		12	Notes Recd 3558	89	6558.19
		27		16	" 3576	90	15729.91
		28		19	Cash	91	2699.8
		29		20	"	92	2000.00
		30		23	"	93	245.22
		31		24	"	94	4000.00
				28	"	95	2547.83
				29	"	96	4000.00
				29	Notes Recd 3505	97	4893.24
				Mar. 6	Cash	98	1500.00
				20	Notes Recd 3552	99	6754.751
				Apr 16	" 3747	100	3751.20
				29	Cash	101	346.28
				May 2	"	102	3500.00
				4	"	103	103.21
				6	"	104	164.29
				6	"	105	148.22
				25	Notes Recd 3524	106	172640.4
				27	Cash	107	124.58
				28	"	108	4000.00
				29	"	109	481.81
				30	"	110	2040.00
				7	Notes Recd 3557	111	10137.13
				24	" 3816	112	7357.57
				July 23	" 3841	113	6030.67
				Aug. 9	" 3968	114	7876.09
				9	Cash	115	161.70
				22	"	116	4086.00
				22	"	117	1503.52
				22	"	118	276.04
				21	Notes Recd 3505	119	381.76
				21	Cash	120	110.32
				2	"	121	107.79
				5	"	122	540.19
				17	"	123	195.17
				20	Balance	124	1026.73
						125	116856.34

116856.34

Bills Receivable

Sept	Balance	12	7661.32	Sept	Cash	60.	3500.00
30	Notes Recd 3558	27.	69048.19	23	"	61.	87.49
Oct.	31	28	303.53	24	"	62.	507.50
Nov.	30	29	195.97	25	"	63.	5000.00
Dec.	31	30	481.91	26	"	64.	1527.00
		31	7295.52	27	Notes Recd 3505	65.	20148.47
				Oct 1	Cash	66.	1102.14
				2	"	67.	844.31
				11	"	68.	1526.22
				9	Notes Recd 3505	69.	5119.03
				18	" " 4173.165	70.	6473.67
				19	" " 4186.164	71.	7639.55
				23	Cash	72.	4000.00
				23	Notes Recd 3505	73.	2728.69
				Dec. 7	Cash	74.	1000.00
				7	"	75.	1323.35
				27	"	76.	2000.00
				27	"	77.	695.99
				28	"	78.	31.33
				31	Lodge 4.3	79.	235.10
						80.	116826.34

116856.34

Freighton Reef Base

		magnesian sand / coarse			
Jan.	1 Red #1	76.	1891/10	Jan. 31 Sand bristles	6
	24 2nd #3	78	1891/10	Feb. 7 Sand bristles	50.
Mar.	31 Worked!	68.	1891/8	Mar. 31 Sand bristles	15.
				Apr. 30 do	70.
					100.
			191/20		

Deck Box Return inside

date	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Jan	21	28	31	31	31	31	31	31	31	31	31	31	31
Feb	28	29	30	31	31	31	31	31	31	31	31	31	31
Mar	31	31	31	31	31	31	31	31	31	31	31	31	31
Apr	30	31	31	31	31	31	31	31	31	31	31	31	31
May	31	31	31	31	31	31	31	31	31	31	31	31	31
June	15	15	15	15	15	15	15	15	15	15	15	15	15
July	31	31	31	31	31	31	31	31	31	31	31	31	31
Aug	31	31	31	31	31	31	31	31	31	31	31	31	31
Sept	30	31	31	31	31	31	31	31	31	31	31	31	31
Oct	31	31	31	31	31	31	31	31	31	31	31	31	31
Nov	30	31	31	31	31	31	31	31	31	31	31	31	31
Dec	31	31	31	31	31	31	31	31	31	31	31	31	31
Jan	31	31	31	31	31	31	31	31	31	31	31	31	31
Feb	19	28	30	31	31	31	31	31	31	31	31	31	31
Mar	27	183	90	163	133	122	112	102	92	82	72	62	52
Apr	30	163	133	122	112	102	92	82	72	62	52	42	32
May	31	202	167	132	107	82	57	32	7	1	1	1	1
June	30	284	209	160	120	80	40	10	1	1	1	1	1
July	31	409	266	191	141	91	41	1	1	1	1	1	1
Aug	31	497	316	216	156	106	56	6	1	1	1	1	1
Sept	30	458	284	194	134	84	34	1	1	1	1	1	1
Oct	31	612	349	219	149	99	49	1	1	1	1	1	1
Nov	30	535	317	197	127	77	27	1	1	1	1	1	1
Dec	31	644	385	245	165	105	55	5	1	1	1	1	1
Jan	31	444	284	184	124	74	24	1	1	1	1	1	1
Feb	28	433	273	173	113	63	13	1	1	1	1	1	1
Mar	31	565	345	225	155	105	55	5	1	1	1	1	1
Apr	30	604	384	254	174	114	64	4	1	1	1	1	1
May	31	672	432	282	192	122	72	2	1	1	1	1	1
June	30	721	461	301	201	131	81	1	1	1	1	1	1
July	31	770	510	330	220	140	90	1	1	1	1	1	1
Aug	31	819	559	359	249	159	99	1	1	1	1	1	1
Sept	30	868	608	388	268	168	108	1	1	1	1	1	1
Oct	31	917	657	417	287	177	117	1	1	1	1	1	1

Druck Bagger Pet' 50

1912		1913		1914	
Feb 29	1772	74	8860	Dec 31	28461 300
Mar 30	2487	80	12355		
Apr 30	958	85	14790		
May 31	1820	92	16100		
June 30	759	100	16795		
July 31	4502	110	22310		
Aug 31	4290	123	26450		
Sept 30	2413	134	28863		
Oct 31	2194	149	30878		
Nov 30	4396	161	34288		
Dec 31	7868	173	42340		
	28461		42340	28461	142305

[illegible]

Deane's Model Discompt

1914			1915					
Jan.	31	Summit Coal Co	773	1530.00	Dec. 5	# 535	147	22
Feb.	28	"	226	446.80	31	Journal	156	1988.108
Mar.	31	"	226	434.75				
Apr.	30	"	229	256.60				
May	31	"	204	318.64				
June	30	"	229	282.68				
July	31	"	229	489.72				
Aug.	31	"	211	1081.43				
Sept.	30	"	243	1089.47				
Oct.	31	"	226	1781.27				
Nov.	30	"	245	1639.28				
Dec.	31	"	246	1684.42				
				1988.130				
Jan.	17	Stanford MS Co	161	750	July 31	Balance	1988.130	4165.01
	24	James W. Denney	165	181.5				
	30	W. H. Haffner & Son	166	750				
	31	Eastland & Co	"	750				
		Sunday Credit	247	432.15				
Feb.	6	Geo. G. Pitts Jr	171	675				
	21	Sunday Credit	174	384.5				
	3	G. G. Williams	171	2655				
	28	Sunday Credit	247	446.54				
Mar.	3	B. D. Wiggins	179	660				
	13	Wm. H. Haffner & Son	181	530				
	14	W. H. Haffner	182	2700.00				
	21	W. H. Haffner	183	850				
	27	E. J. Haffner	184	4102				
		J. J. Haffner	185	660				
	31	Eastland & Co	186	10325				
		Samuel Co.	248	2279				
Apr.	30	"	"	875				
May	2	W. H. Haffner	200	850				
	5	Eastland & Co	202	875				
	10	Michael A. Dennis	203	7650				
	12	Henry Haffner & Son	204	100				
	18	Samuel Co.	205	5350				
	23	Eastland & Co	207	4500				
	31	Sam. Co.	248	855				
June	12	Eastland & Co	216	13600				
	15	Eastland & Co	217	750				
		J. Haffner Co.	"	675				
	19	Eastland & Co	218	4250				
	30	Sam. Co.	248	1635				
July	15	E. J. Haffner	226	750				
	17	Eastland & Co	228	32300				
	25	Sam. Co.	230	14798.5				
	31	Eastland & Co	249	464				
				4165.01				

Debit Mtd Ac Dist

1891			1892		
Aug 1	Balance	4165.61	Dec 30	Journal	65. 6532.94
5	Swind Co.	556.52			
8	Good Harbor	460			
8	Swind Co.	7590			
16	W.D. & Co.	5			
18	Swind Co.	1000			
23	W.D. & Co.	8			
Sept 7	Swind Co.	45050			
22	Swind Co.	17500			
25	W.D. & Co.	750			
28	W.D. & Co.	675			
Oct 6	Swind Co.	5549			
11	W.D. & Co.	24550			
13	Swind Co.	12150			
20	W.D. & Co.	3600			
24	W.D. & Co.	7460			
Nov 10	Swind Co.	37400			
Dec 11	Swind Co.	11050			
21	Swind Co.	2661			
		6532.94			
Jan 10	Swind Co.	6500	Dec 31	Journal	700 2961.25
Feb 5	Swind Co.	5100			
Mar 6	Swind Co.	12200			
Apr 10	Swind Co.	8500			
30	Swind Co.	3750			
May 10	Swind Co.	11550			
June 7	Swind Co.	17225			
8	Swind Co.	26350			
July 13	Swind Co.	14950			
Aug 14	Swind Co.	24850			
Sept 17	Swind Co.	44850			
Oct 25	Swind Co.	168			
Nov 13	Swind Co.	27890			
Dec 9	Swind Co.	44040			
11	Swind Co.	246125			

2961.25

Bag Expense

1891			1892		
Jan 1	Ref #1	95.	1892	1892	1892
15	Swind Co.	56.	1892	1892	1892
Mar 17	Swind Co.	306.	1892	1892	1892
19	Swind Co.	64.	1892	1892	1892
21	Swind Co.	1970	1892	1892	1892
31	Swind Co.	70.	1892	1892	1892
5	Swind Co.	306.	1892	1892	1892
20	Swind Co.	68.	1892	1892	1892
31	Swind Co.	71.	1892	1892	1892
May 31	Swind Co.	31.	1892	1892	1892
June 30	Swind Co.	81.	1892	1892	1892
July 31	Swind Co.	39.	1892	1892	1892
Aug 30	Swind Co.	92.	1892	1892	1892
Sept 30	Swind Co.	40.	1892	1892	1892
Oct 30	Swind Co.	99.	1892	1892	1892
Nov 1	Swind Co.	100.	1892	1892	1892
31	Swind Co.	337.	1892	1892	1892
Dec 31	Swind Co.	85.	1892	1892	1892
Jan 1	Swind Co.	109.	1892	1892	1892
31	Swind Co.	69.	1892	1892	1892
Feb 31	Swind Co.	116.	1892	1892	1892
Mar 31	Swind Co.	80.	1892	1892	1892
Apr 31	Swind Co.	148.	1892	1892	1892
May 31	Swind Co.	125.	1892	1892	1892
June 31	Swind Co.	129.	1892	1892	1892
July 31	Swind Co.	92.	1892	1892	1892
Aug 31	Swind Co.	104.	1892	1892	1892
Sept 31	Swind Co.	141.	1892	1892	1892
Oct 31	Swind Co.	103.	1892	1892	1892
Nov 31	Swind Co.	144.	1892	1892	1892
Dec 31	Swind Co.	145.	1892	1892	1892
Jan 1	Swind Co.	113.	1892	1892	1892
Feb 1	Swind Co.	154.	1892	1892	1892
Mar 1	Swind Co.	1047.25	1892	1892	1892
Apr 1	Swind Co.	632.50	1892	1892	1892
May 1	Swind Co.	6000	1892	1892	1892
June 1	Swind Co.	123.	1892	1892	1892
July 1	Swind Co.	169.	1892	1892	1892
Aug 1	Swind Co.	174.	1892	1892	1892
Sept 1	Swind Co.	132.	1892	1892	1892
Oct 1	Swind Co.	176.	1892	1892	1892
Nov 1	Swind Co.	182.	1892	1892	1892
Dec 1	Swind Co.	186.	1892	1892	1892
Jan 1	Swind Co.	141.	1892	1892	1892
Feb 1	Swind Co.	188.	1892	1892	1892
Mar 1	Swind Co.	192.	1892	1892	1892

1861.25

Coopage.

Dec. 31	Balance	57.	547/126	Dec. 31	Druggists	200.	40148/67
			547/126		Profits & Loss		142259
							547/126

Accounts Receivable

1890		1891	
Jan. 1	Ed. #	175	1470778
31	Journal Balance	170	6101190
	Debit	23853	
	Ed	101050	
	100	10946	
	Journal	51	878117
Feb. 1	Debit	113	911455
	Journal	59	31756
	Debit	306	37795
	303	318527	
	Journal	177	888888
	Journal	59	31756
May 1	Debit	124	136000
	Journal	219	16254
	Journal	66	52353
	Debit	197	14657684
	Debit	306	35390
	Journal	36	4183688
	Debit	66	4183688
	Debit	114	69471
Apr. 1	Debit	219	4575
	Debit	317	18255860
	Journal	36	1825447
	Debit	140	1825447
	Journal	88	79022
	Debit	27	4027
	Debit	260	207615
	Debit	239	17027885
	Debit	110	12075311
	Debit	219	9301
	Debit	238	1014366
	Debit	98	100907
	Debit	266	8362
	Debit	264	
	Debit	101	1018588
	Debit	70	1171088
	Debit	266	9000
	Debit	117	1111088
	Debit	307	103336
	Debit	74	122234
	Debit	110	10169
	Debit	277	18109400
	Debit	117	37078
	Debit	265	1018588
	Debit	101	694
	Debit	1210610	

1210610

Accounts Receivable

1890		1891	
Aug. 1	Balance	90	2492206
31	Debit	207	4772
	Ed	117	911077
	Ed	215	4575
	Debit	36	260908
	Debit	27	2556907
	Debit	250	88046
	Journal	115	6488817
	Debit	117	5223854
	Debit	201	1070907
	Debit	215	5775
	Debit	60	18680426
	Journal	124	183964
	Debit	267	276628
	Debit	780	7381763
	Debit	176	7381763
	Debit	215	1009124
	Debit	27	9485
	Debit	307	267
	Debit	269	375330
	Debit	104	651407
	Debit	77	19441262
	Debit	281	98688
	Debit	186	9846
	Debit	11	1076571
	Debit	220	21195
	Debit	74	15467941
	Debit	271	32775
	Debit	143	205761
	Debit	307	1448
	Debit	267	386164
	Debit	67	11020820
	Debit	24	1006771
	Debit	220	13383
	Debit	370	269152
	Debit	153	2432464
	Debit	102	2932847
	Debit	58	2932847
	Debit	117	11750
	Debit	34	1137370
	Debit	217	4963
	Debit	281	11250
	Debit	112	7111451
	Debit	168	1317164
	Debit	371	258725
	Debit	176	204442
	Debit	132211534	

132211534

Feb. 28 Journal

Feb. 28 Journal

132211534

132211534

Bell Union Coal & Coke Co. Stock

1911
Oct 9 55 shares for mch 26 110000
1912
Dec 31 Ledger #3 177 110000

Savannah Depreciations ap.

1841									
Nov.	22	Sav. Salvage	45	138558	Dec	30	P & L		54107.53
Dec.	28	Geo. Salmons	58	402125					
				260423					54107.53
Sept.	5		76	34643	Feb	9	Geo. Salmons	77	1775
Dec.	13	A. M. Gannett	102	27700	July	28	Albany Bonds	78	28234
	31	Profit & Loss	200	28234	Dec	27	A. M. Gannett	194	28234
				45371					45371

Sales Allowances

1912									
Jan.	8	Swadlow Bros 3404	67	520	Jan. 31	Caplan Bros del.	72	180	
	9	" (S. W. Co) 3409	"	85	Feb. 8	" (S. W. Co) del.	76	4513	
	"	" 1144-1014	"	5385		9	" (S. W. Co) 77	1250	
	10	" (S. W. Co) 3476	68	1500		17	" (S. W. Co) 77	335	
	"	" (S. W. Co) 3477	"	3570	Mar. 11	" (S. W. Co) del.	84	1215	
	13	" (S. W. Co) 3503	"	800		5	" 80	285	
	"	" (S. W. Co) 3504	"	1136		13	" (S. W. Co) 87	426151	
	16	" (S. W. Co) 3506	69	36500					
	18	" (S. W. Co) 3512	70	1400					
	22	" (S. W. Co) 3516	"	9425					
	"	" (S. W. Co) 3517	"	2250					
	"	" (S. W. Co) 3520	"	1200					
	"	" (S. W. Co) 3522	71	7928					
	26	" (S. W. Co) 3525	"	4097					
	"	" (S. W. Co) 3529	"	600					
	29	" (S. W. Co) 3532	72	1100					
	31	" (S. W. Co) 3536	"	28818					
Feb.	5	" (S. W. Co) 3538	75	1497					
	8	" (S. W. Co) 3542	76	1500					
	"	" (S. W. Co) 3545	"	415					
	"	" (S. W. Co) 3547	"	106					
	9	" (S. W. Co) 3570	77	800					
	"	" (S. W. Co) 3572	"	1136					
	10	" (S. W. Co) 3575	78	1500					
	14	" (S. W. Co) 3580	"	2150					
	"	" (S. W. Co) 3582	"	5920					
	17	" (S. W. Co) 3584	79	67902					
	"	" (S. W. Co) 3586	"	800					
	"	" (S. W. Co) 3587	"	285					
	"	" (S. W. Co) 3588	"	4055					
	"	" (S. W. Co) 3590	"	650					
	20	" (S. W. Co) 3594	80	200					
	17	" (S. W. Co) 1216	"	1525					
	26	" (S. W. Co) 3600	81	675					
	"	" (S. W. Co) 3601	"	600					
	29	" (S. W. Co) 3603	82	78818					
Mar.	5	" (S. W. Co) 3605	84	2640					
	"	" (S. W. Co) 3606	"	7706					
	"	" (S. W. Co) 3610	"	8115					
	5	" (S. W. Co) 3615	85	15125					
	"	" (S. W. Co) 3617	"	379					
	6	" (S. W. Co) 3616	86	2603					
	8	" (S. W. Co) 3619	"	3040					
	"	" (S. W. Co) 3620	87	1504					
	"	" (S. W. Co) 3621	"	2300					
	12	" (S. W. Co) 3622	"	60000					
	13	" (S. W. Co) 3624	"	3907					
	"	" (S. W. Co) 3626	88	600					
				42352					

Sales Allowances

1907		1908	
Aug. 31	Balance 107.	Sept. 11	Empire Oil Co. 158
31	Merch. Co. 1522.148.	"	Wells Co. 68
	E.P. Caplan 1551.	"	Leahy & Co. 68
	Johnston 1556.	"	Leahy & Co. 68
	Entire 449.68	17	Franklin & Co. 189
Sept. 11	Black 1536.153.	21	Clark 1590. 80.
	D.S.W.P. 4495.154.	"	Empire 168.
	" 1800	Nov. 13	Balance 109. 144.72.51
	" 300		
	" 11.46		
	" 380		
	" 37.10		
	" 500		
	" 7000		
	" 4050		
	" 4126		
Oct. 30	Handing ac. 160		
	9 E. Jacobs 4164.164.		
	18 E. Jacobs 165		
	" 500		
	" 500		
	" 1700		
	" 1500		
	" 800		
	" 755.4		
	" 300		
	" 600		
	" 75		
	" 450		
	" 75		
	" 1065		
	" 61		
	" 600		
	" 7856.0		
	" 1037		
	" 3500		
	" 355.42		
	" 5670		
	" 10000		
	" 72890		
Nov. 8	Empire Oil Co. 155.171		
	" 3000		
	" 1511		
	" 50		
	" 1592		
	" 7170		
	" 700		
	" 700		
	" 1700		
	" 165		
	" 1468.68		

Sales Allowance

1907		1908	
Nov. 13	Balance 108. 144.72.51	Nov. 8	G. Jacobs 175. 06.
16	Empire Oil Co. 178. 70.00	13	Franklin & Co. 175. 26.59
"	Leahy & Co. 179. 17.40	14	Empire Oil Co. 179. 01
22	W. H. H. 178. 500	17	Empire Oil Co. 178. 17
"	Leahy & Co. 178. 59.90	19	Empire Oil Co. 178. 59.90
"	Leahy & Co. 178. 700	31	Profit 178. 15.24.62
"	Leahy & Co. 178. 1018		
27	W. H. H. 178. 600		
"	Leahy & Co. 178. 73.50		
29	Leahy & Co. 178. 73.50		
6	Leahy & Co. 178. 38.1		
"	Leahy & Co. 178. 50.00		
"	Leahy & Co. 178. 50.00		
"	Leahy & Co. 178. 15.00		
9	Leahy & Co. 178. 37		
"	Leahy & Co. 178. 700		
10	Leahy & Co. 178. 42.42.2		
14	Leahy & Co. 178. 800		
"	Leahy & Co. 178. 35		
"	Leahy & Co. 178. 790		
23	Leahy & Co. 178. 717		
"	Leahy & Co. 178. 931.4		
24	Leahy & Co. 178. 72.60		
31	Leahy & Co. 178. 72890		
	1562610		

Bills Payable

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32																																																																																																																																																															

Bier Payable

29.8.76

1898	Jan	1	to London	2119	12,572.00	1898	1	to Balance	11483.32	579
					57,250.00			to Cash	2,294.47	580
								to Cash	2,294.47	581
								to Cash	2,294.47	582
								to Cash	2,294.47	583
								to Cash	2,294.47	584
								to Cash	2,294.47	585
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								to Cash	2,294.47	611
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								to Cash	2,294.47	613
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								to Cash	2,294.47	615
								to Cash	2,294.47	616
								to Cash	2,294.47	617
								to Cash	2,294.47	618
								to Cash	2,294.47	619
								to Cash	2,294.47	620
								to Cash	2,294.47	621
								to Cash	2,294.47	622
								to Cash	2,294.47	623
								to Cash	2,294.47	624
								to Cash	2,294.47	625
								to Cash	2,294.47	626
								to Cash	2,294.47	627
								to Cash	2,294.47	628
								to Cash	2,294.47	629
								to Cash	2,294.47	630
								to Cash	2,294.47	631
								to Cash	2,294.47	632
								to Cash	2,294.47	633
								to Cash	2,294.47	634
								to Cash	2,294.47	635
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								to Cash	2,294.47	638
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								to Cash	2,294.47	698
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								to Cash	2,294.47	702
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								to Cash	2,294.47	720
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								to Cash	2,294.47	722
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								to Cash	2,294.47	731
								to Cash	2,294.47	732
								to Cash	2,294.47	733
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								to Cash	2,294.47	736
								to Cash	2,294.47	737
								to Cash	2,294.47	738
								to Cash	2,294.47	739
								to Cash	2,294.47	740
								to Cash	2,294.47	741
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								to Cash	2,294.47	743
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								to Cash	2,294.47	750
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								to Cash	2,294.47	764
								to Cash	2,294.47	765
								to Cash	2,294.47	766
								to Cash	2,294.47	767
								to Cash	2,294.47	768
								to Cash	2,294.47	769
								to Cash	2,294.47	770
								to Cash	2,294.4	

Bills Payable

1910		1911	
Oct. 1	Balance	112	000
31	Good	55	8471692
Nov. 30	"	102	1046962
Dec. 31	"	119	8493982
31	Edgewood	255	2064706
			237886311
Oct. 1	Balance	112	000
31	Good	55	8471692
Nov. 30	"	102	1046962
Dec. 31	"	119	8493982
31	Edgewood	255	2064706
			237886311

Accounts Receivable Ledger "G"

1911

Aug. 1	Balance	92	85350.75
31	Cash	17	8524.50
	Journal	10	19750.35
	Sales Pgs.	26	67874.21
	"	297	61594.00
	"	299	66540.00
	"	302	65236.00
Sept. 20	Cash	19	77354
	Journal	49	63559.51
	Sales Pgs.	49	63559.51
	"	295	35560
	"	299	36449
	"	302	30279.1
Oct. 31	Cash	45	8256
	Journal	54	45735.85
	Sales Pgs.	69	45735.85
	"	294	12450
	"	54	4420.28
	"	47	32628
	"	85	30566.94
	"	300	31145.40
	"	302	31145.40
	"	304	307
	"	72	51865.4
	"	60	34195.4
	"	96	25023.02
	"	64	44044

Jan. 1	Balance	72	62501.33
31	Journal	103	91717.4
	Sales Pgs.	292	20250
	"	149	30
	"	85	44524.8
	"	73	876.97
	"	82	98822
	"	95	3371.53
	"	292	5639
	"	111	158394.7
	"	83	5003.6
	"	149	191.938

Jan. 1	Balance	69	174.89
31	Journal	65	1333538
	Sales Pgs.	394	12691
	"	72	5970
	"	149	110
	"	85	16688.73
	"	15	81.9846
	"	74	777.555
	"	394	165.16
	"	82	37583
	"	95	14784.86
	"	16	6518.94
	"	357	623.200
	"	50	6529.89
	"	394	27.53
	"	149	119
	"	17	147247
	"		9806740

Aug. 21	Cash	17	4238320
	Recs. Rec.	6	7196.29
	Journal	10	119713
	Sales Pgs.	11	186178
	"	390	2017
	"	302	27155.79
	"	7	2597.27
	"	19	19620.1
	"	21	13192.54
	"	391	12579
	"	45	4086.06
	"	8	5312.83
	"	35	15054.09
	"	391	1545
	"	34	10885.55
	"	47	103040.3
	"	342	4979
	"	57	307116.2
	"	151	40
	"	10	779205
	"	47	130277
	"	203	849
	"	150	23217.85
	"	72	2004388
	"	60	7041.50
	"	54	655248
	"	393	4095
	"	12	2811.43
	"		6750153

Jan. 1	Balance	69	174.89
31	Journal	65	1333538
	Sales Pgs.	394	12691
	"	72	5970
	"	149	110
	"	85	16688.73
	"	15	81.9846
	"	74	777.555
	"	394	165.16
	"	82	37583
	"	95	14784.86
	"	16	6518.94
	"	357	623.200
	"	50	6529.89
	"	394	27.53
	"	149	119
	"	17	147247
	"		9806740

Accounts Receivable Ledger "C"

Feb. 27	Balance	2756364	Feb. 27	Journal	82.	351.
"	Journal	82.	"	Cash	95	109771.
"	Cash	95	"	Pinto Rec.	16	1238.
"	Subs. Reg. Sub.	212	"	Spa. 30 Subs. Reg. Sub.	50.	55339.
"	"	111.	"	"	394.	274.
Mar. 30	Stamps	149.	"	Stamps	149.	2.
"	Journal	92.	"	Pinto Rec.	97.	42524.
"	Cash	107.	"	Journal	12.	3588.
"	Subs. Reg. Sub.	780	"	Cash	107.	51449.
"	"	177.	"	Spa. 30 Subs. Reg. Sub.	18	55339.
"	Balance	300	"	Cash	120.	170849.
Apr. 30	Cash	170	"	Journal	101.	9157.
"	Journal	101.	"	Subs. Reg. Sub.	35.	347339.
"	Subs. Reg. Sub.	156	"	"	395.	507145.
"	"	287.	"	"	125	225267.
May 30	Stamps	145.	"	Cash	70	85521.
"	Cash	185	"	Subs. Reg. Sub.	92	55339.
"	Journal	114.	"	"	395.	528.
"	Subs. Reg. Sub.	165	"	Journal	114.	44494.
"	"	285	"	Spa. 30 Subs. Reg. Sub.	100.	972550.
June 29	Cash	13	"	Cash	13.	1760199.
"	Journal	125	"	Pinto Rec.	21	161157.
"	Subs. Reg. Sub.	217	"	Journal	125.	2486.
"	"	374.	"	Spa. 30 Subs. Reg. Sub.	394.	87212.
"	P. 6.	371.	"	Subs. Reg. Sub.	10	875150.
July 31	Cash	31	"	"	399	33228.
"	Journal	139	"	Cash	31	4180765.
"	Subs. Reg. Sub.	187	"	Pinto Rec.	33	5420466.
"	"	245	"	Journal	139.	465972.
Aug. 31	Stamps	299	"	Spa. 30 Subs. Reg. Sub.	123.	1376795.
"	Cash	49	"	Stamps	299.	1430.
"	Subs. Reg. Sub.	33.	"	Cash	49	2120189.
"	"	4.	"	Journal	98	353912.
"	Journal	149.	"	Pinto Rec.	149	70995.
"	Cash	65	"	Subs. Reg. Sub.	351.	54561.
"	Subs. Reg. Sub.	8	"	Cash	65	2498036.
"	"	65	"	Pinto Rec.	27	445896.
Oct. 31	Cash	85	"	Subs. Reg. Sub.	353.	15648.
"	Journal	76	"	"	134.	575401.
"	Subs. Reg. Sub.	10	"	Journal	160	2446870.
"	"	299.	"	Pinto Rec.	29.	902371.
Nov. 30	Stamps	299.	"	Cash	85	4350399.
"	"	177.	"	Journal	171.	70307.
"	"	149.	"	Subs. Reg. Sub.	356.	1478106.
"	"	128	"	"	29.	96246.
"	"	128	"	Stamps	299.	1717.
"	"	128	"	Balance	128	52220.
"	"	128	"	"	41815539.	5539.

Bonus to Employees

1910				1916				
Feb.	1-27	Cash	106	1500	Dec. 31	Journal	106	1500
Oct.	24	c. 34108	43	16368	Dec. 30	P & L		79490
Nov.	15	Herman Stephens	55 ^{34/100}	13122				
				29490				79490

Accounts Receivable, Lelystad A.

[illegible]

Accts Receivable. Ledger B.

1914				1915			
Nov.	1	Balance	118. 65781.82	Nov.	30	Stamps	288. 1.3
	30	Stamps	348. 2.4			Garage	102. 25471.22
	"	Cash	102. 2480.82		"	Miss Rec.	21. 21888.8
	123.	Sales Reg.	378155.4		"	Youngs	182. 21926
	"	"	77563		"	Handy Co.	161. 878436
	11.	"	37119		"	"	559. 357.5
	182.	Youngs	119. 5181.22		"	Stamps	207. 1.3
Dec.	31	Cash	119. 14475	Dec.	31	Garage	119. 18114.31
	31	Sales Reg. (Cont.)	12. 4995		"	Miss/Brook	32. 77232.3
	"	Youngs	145. 75448.45		"	Youngs	186. 68338
	"	Sales Reg.	145. 75448.45		"	Handy Co.	173. 1138397
					"	"	361. 7523646
					31	Ledger H.B.	185. 6727177
							12714985
							12714985

Unpaid Coupons for Bond Int.

1914				1915			
Oct.	20	Youngs	332113850.0	Jan.	1	Bd #	114. 22770.00
Apr.	29	Thompson Co.	1000. 27988.0	Apr.	20	rede Bond Int.	76. 3822.55
				May	21	"	102. 3126.55
				Apr.	5	"	190. 34740.00
				Oct	9	"	26. 5172000
							14085000
							14085000

Auto. Rec. Ledger C.

1911		1912	
Nov.	30	Balance	102. 37.54 2.24
"	"	Rec. Rec.	31. 68.27 39.
"	"	Journal	187. 66.20
"	"	Sundry Cr.	161. 13.71 1.67
"	"	"	11. 359. 5. 4. 18.8
"	"	Journal	119. 27.39 9.63
"	"	Rec. Rec.	33. 7.20 5.19
"	"	Journal	196. 17.67 9.9
"	"	Sundry Cr.	173. 17.81 0.44
"	"	"	361. 4. 8. 87.
"	"	31 Ledger #3.	187. 87.65 3.69
			196.586.07

196586.07

Auto. Rec. Ledger D.

1911		1912	
Nov.	30	Balance	102. 37.54 2.24
"	"	Rec. Rec.	31. 68.27 39.
"	"	Journal	187. 66.20
"	"	Sundry Cr.	161. 13.71 1.67
"	"	"	11. 359. 5. 4. 18.8
"	"	Journal	119. 27.39 9.63
"	"	Rec. Rec.	33. 7.20 5.19
"	"	Journal	196. 17.67 9.9
"	"	Sundry Cr.	173. 17.81 0.44
"	"	"	361. 4. 8. 87.
"	"	31 Ledger #3.	187. 87.65 3.69
			196.586.07

1811087.2

1811087.2

Account of Bond Int.

1900			1900			
Apr. 15	Bond Int. # 10	10710.00	Jan. 1	Left	2147	2250.00
20	Bond Int. # 10	2277.00	"	Left	52	2650.00
1	Bond	192.00	"	Left	57	7000.00
		4000.00	"	Mar. 01	66	7500.00
						4000.00
May 27	Bond	192.00	Apr. 30	Bond Int.	80	7500.00
Oct. 21	Bond Int. # 10	2660.00	May 31	"	88	7500.00
	Bond Int. # 10	8077.50	June 30	"	97	7500.00
19	Bond	245.00	July 31	"	106	7500.00
			Aug. 31	"	114	7500.00
			Sept. 30	"	122	7500.00
		4500.00				4500.00
Nov. 22	Edibility Bond Int. # 10	9870.00	Oct. 31	Bond Int.	124	7500.00
27	Bond Int. # 10	8000.00	Nov. 30	"	132	7500.00
Apr. 5	Bond Int. # 10	3770.00	Dec. 31	"	140	7500.00
15	Bond Int. # 10	4600.00	Jan. 01	"	148	7500.00
Sept. 27	Bond Int. # 10	8570.00	Feb. 28	"	156	7500.00
Oct. 2	Bond Int. # 10	8000.00	Mar. 31	"	164	7500.00
9	Bond Int. # 10	6600.00	Apr. 30	"	172	7500.00
11	Bond Int. # 10	3177.00	May 31	"	180	7500.00
May 25	Bond Int. # 10	8570.00	June 30	"	188	7500.00
Apr. 1	Bond Int. # 10	3000.00	July 31	"	196	7500.00
4	Bond Int. # 10	6600.00	Aug. 31	"	204	7500.00
11	Bond Int. # 10	2277.00	Sept. 30	"	212	7500.00
21	Bond Int. # 10	8570.00	Oct. 31	"	220	7500.00
Sept. 27	Bond Int. # 10	8570.00	Nov. 30	"	228	7500.00
Oct. 9	Bond Int. # 10	8570.00	Dec. 31	"	236	7500.00
Dec. 31	Bond Int. # 3	263250.00	Jan. 28	"	244	7500.00
			Feb. 29	"	252	7500.00
			Mar. 29	"	260	7500.00
			Apr. 30	"	268	7500.00
			May 31	"	276	7500.00
			June 29	"	284	7500.00
			July 31	"	292	7500.00
			Aug. 31	"	300	7500.00
			Sept. 30	"	308	7500.00
			Oct. 30	"	316	7500.00
			Nov. 30	"	324	7500.00
			Dec. 31	"	332	7500.00
		202500.00				202500.00

Suspense Account

1910				1911					
Jan.	1	Bel. #	153	4279	197	John Amundson	46	17117	
Feb.	1	Amundson	58	4740					
Mar.	24	E. & J. Amundson	7	2379					
Apr.	3	Amundson	62	132578					
Apr.	14	E. & J. Amundson	72	8451					
				17101					
Apr.	7	Amundson	244	969	Apr. 25	Amundson	112	919	
Apr.	10	20105	308	29078	Apr. 31	Amundson	1698	29078	
Mar.	2	20118	448	34549	Feb. 7	Amundson	1722	1350	
Apr.	4	20144	582	50448	28	Amundson	1765	8425	
	10	Amundson 26621915	8425			Amundson	1772	24548	
	27	Amundson 27561976	1620	Apr. 7	Amundson	1816	61200		
Mar.	6	20105	912	290102	31	Amundson	1888	50448	
	2	Amundson 27442008	3400	Apr. 11	Amundson	1928	3400		
	25	Amundson	2078	5000	50	Amundson	1992	29032	
June	6	20136	958	4658	May 5	Amundson	2028	4845	
July	10	20177	1018	5768	8	Amundson	2048	1700	
Aug.	3	Amundson	28	515	11	Amundson		2840	
	16	Amundson	58	520	15	Amundson	2058	1700	
	3	20109	10	3502	18	Amundson		1700	
	31	Amundson	98	1400	19	Amundson	2078	1400	
Sept.	5	20122	188	3478	31	Amundson	2118	41531	
	9	Amundson	158	2680	June 15	Amundson	2168	5000	
Oct.	1	Amundson		1400		Amundson	2178	1000	
	6	Amundson	248	1500	28	Amundson	2208	520	
	5	Amundson	258	1350	30	Amundson	2218	1250	
	13	Amundson	278	900		Amundson	2228	47050	
	14		288	7045	July 31		2528	5502	
	18	Amundson	298	5000	Aug. 31		118	2540	
	5	20109	308	30346	Sept. 26		188	30174	
	21	Amundson	318	550			208	30546	
	25	Amundson	328	800	Oct. 31		358	41933	
Nov.	31	Amundson	338	2650	Nov. 20		438	43293	
	1	Amundson	388	1500	Dec. 30	Amundson	498	15222	
	10	Amundson	398	3538	Jan. 30		928	8058	
	15	Amundson	418	4658	Feb. 30		1028	37283	
	4	20114	478	4228	May 15	Amundson	106	30000	
Dec.	7	20101	538	4228	31	Amundson	1128	44238	
Jan.	9	Amundson	778	4228	June 24	Amundson	308	44238	
Apr.	4	20101	1098	4056	30	Amundson	1788	27174	
May	3	20112	1238	3928	Sept. 27	Amundson	159	44238	
June	31	Amundson	1128	4228	Oct. 9	Amundson	160	44238	
July	4	20111	18	4228					
	3	20109	158	2778					
Nov.	16	Amundson	137	78998					
	30	Amundson	157	3229					
	31	Amundson	269	80000					
				832896					

Evangelical Propag.

1972			1973			1974		
Sept	9	Central Smith	97	27.00	Oct	21	Bank	80
May	29	K. N. Macey	111	185.54	Dec	31	Ledger #3	131
Nov	29	Franklin Macey	101	30.75				
				244.19				244.19

Account Int. & Direct

[illegible]

Thomas Edison

(Personal 90)

1912

Dec.	31	Ledger #3.	231	9782789	Dec.	31	Ref'd Bk.	196	303905
							"	"	864121
							"	"	539446
							"	"	162181
							"	"	76016
							"	"	2782789

9782789

2782789

Cement in Warehouse, of Bradley

1910		1911		1912		1913		1914	
Jan.	1	Feb. #1	1888	2746.39	Jan.	31	1018 444 @ 60	50	61254
Feb.	28	7949	2550 50	6535.29	"	"	3066 " "	60	213355
Mar.	31	8288	60 60	8238.88	Feb.	28	1512 " "	60	258227
Apr.	30	8520	60 60	8238.88	Mar.	31	1539 " "	60	457528
May	31	8949	60 60	8238.88	Apr.	30	1548 " "	60	70190
June	30	2040	60 60	8238.88	May	31	1592 " "	60	853486
July	31	1828	60 60	8238.88	June	30	1548 " "	60	170466
					July	31	1022 " "	60	57656
					Aug.	31	2495 " "	60	165368
							6582 " "	60	8146
							508 " "	60	20028
							1532 " "	60	89256
							1520 " "	60	124837
							228 " "	60	155477
									14105
									1357119

Cement in Warehouse, Mason & Nangle Co.

Oct	31	1500	0.56 34	84000	Oct	31	500	0.56 35	28000
Nov	30	750	" 56 62	42000	Nov	30	1000	" "	56000
Dec	29	1250	" " 52	71000	Dec	31	750	" "	42000
Jan	31	500	" 52 129	27500	Jan	29	1250	" "	71000
				27500	Feb	31	500	" 52 130	27500
				4000					22650

Cement in Warehouse, Kennedy Square

1910	Jan. 1	Red. #	✓ 1 1/2	1911	Oct. 31	1 1/2	05/18 35	87
			14 1/2			14 1/2		87

Cement in $\frac{1}{10}$ Warehouse, Tampa, Fla.

[illegible]

Cement in Warehouse, Wilmington.

1916				1917					
Jan. 1	Red.	567 189	567	Jan. 31	174	444	@ 62	43	9947
Feb. 28	3349 @	607 60	58349	Feb. 28	158	"	"	60	11038
Mar. 31	6669	" 667 67	77639	Mar. 31	819	"	"	67	12928
Apr. 30	7289	" 678 116	88869	Apr. 30	66	"	"	81	8709
May 31	7309	" 651 155	94739	May 31	642	"	"	607	8649
				June 30	888	"	"	91	7137
				July 31	207	"	"	98	11831
				Aug. 31	596	"	"	107	8081
				Sept. 30	589	"	"	115	6558
				Oct. 31	910	"	"	118	18160
					784	"	"	129	8753
				Nov. 30	975	"	"	106	20104
					463	"	"	89	28064
				Dec. 31	674	"	"	144	38871
					84	"	"	153	4855
				Jan. 31	189	"	"	169	34928
				Feb. 28	10	"	"	177	3111
				Mar. 31	55	"	"	187	3511
				Apr. 30	122	"	"	198	3711
				May 31	179	"	"	212	3722
					520	"	"	651	10375
				June 30	582	"	"	223	20845
				July 31	114	"	"	232	25534
				Aug. 31	315	"	"	12	2684
				Sept. 30	535	"	"	35	20507
				Oct. 31	445	"	"	48	22028
				Nov. 30	189	"	"	73	31326
				Dec. 31	177	"	"	197	24164
					466	"	"		28378
					9067				458527
					588627				

9067

588627

9067

Fertilizer Bags

1917				1918					
Apr. 31	231702	@ 193	1950361	Apr. 31	155575	@ 193	1348437		
May 30	27470	@ 353	271240	May 30	26590	@ 104	8	763989	
June 31	19245	@ 986	248894	June 31	14016	@ 104	10	1169449	
July 30	27888	@ 359	244639	July 30	8560	@ 104	11	1186098	
Aug. 31	15328	@ 361	1479479	Aug. 31	5360	@ 104	12	53600	
					111655			17	111655
					352254			100	352254
					2769898				2769898

322324

2769898

352254

2769898

Thos. A. Edison's Sales Notes

1911				1911				
Aug.	1	Price Paid	\$50000	Aug.	2	C. I. D.	1	\$50000
"	2	"	\$50000	"	8	"	6	\$50000
"	3	"	\$50000	"	9	"	7	\$50000
"	4	"	\$50000	"	10	"	8	\$50000
"	11	"	\$50000	"	14	"	9	\$50000
"	12	"	\$50000	"	16	"	9	\$50000
"	15	"	\$50000	"	19	"	11	\$50000
"	18	"	\$100000	"	22	"	12	\$50000
"	19	"	\$50000	"	24	"	14	\$50000
"	21	"	\$50000	"	26	"	14	\$50000
"	25	"	\$100000	"	28	"	16	\$100000
"	28	"	\$50000	"	30	"	16	\$50000
Sept.	2	"	\$50000	Sept.	6	"	17	\$50000
"	6	"	\$50000	"	7	"	17	\$50000
"	8	"	\$50000	"	9	"	20	\$50000
"	9	"	\$50000	"	12	"	20	\$50000
"	11	"	\$50000	"	18	"	22	\$50000
"	12	"	\$50000	"	20	"	26	\$50000
"	16	"	\$50000	"	20	"	28	\$50000
"	17	"	\$50000	"	19	"	27	\$50000
"	21	"	\$50000	"	22	"	29	\$50000
"	23	"	\$50000	"	24	"	31	\$50000
"	27	"	\$50000	"	24	"	31	\$50000
Oct.	2	"	\$50000	Oct.	29	"	32	\$50000
"	3	"	\$50000	"	4	"	33	\$50000
"	6	"	\$50000	"	5	"	34	\$50000
"	9	"	\$50000	"	7	"	35	\$50000
"	13	"	\$50000	"	11	"	37	\$50000
"	16	"	\$50000	"	17	"	39	\$50000
"	17	"	\$50000	"	18	"	40	\$50000
"	20	"	\$50000	"	21	"	41	\$50000
"	24	"	\$50000	"	26	"	43	\$50000
"	24	"	\$50000	"	31	"	45	\$50000
Nov.	1	"	\$50000	Nov.	2	"	46	\$50000
"	2	"	\$50000	"	8	"	48	\$50000
"	6	"	\$50000	"	9	"	49	\$100000
"	7	"	\$50000	"	11	"	51	\$50000
"	9	"	\$50000	"	15	"	52	\$50000
"	11	"	\$50000	"	16	"	52	\$50000
"	14	"	\$50000	"	33	"	55	\$50000
"	15	"	\$50000					
"	21	"	\$50000					

Thos. A. Edison's Sales Notes

1911				1911				
Nov.	21	Price Paid	\$50,000	Nov.	24	C. I. D.	55	\$50,000
	24	"	\$50,000	Dec.	1	"	58	\$50,000
Dec.	1	"	\$50,000		7	"	58	\$50,000
	2	"	\$50,000		8	"	57	\$50,000
	4	"	\$50,000		9	"	61	\$50,000
	6	"	\$50,000		14	"	62	\$50,000
	11	"	\$50,000		16	"	64	\$50,000
	13	"	\$50,000		19	"	66	\$50,000
	15	"	\$50,000		21	"	69	\$50,000
	18	"	\$50,000		26	"	69	\$50,000
	19	"	\$50,000		27	"	73	\$50,000
	20	"	\$50,000	Jan.	3	"	73	\$50,000
	23	"	\$50,000		4	"	74	\$50,000
Jan.	2	"	\$50,000		8	"	75	\$50,000
	3	"	\$50,000		11	"	76	\$50,000
	5	"	\$50,000		12	"	77	\$50,000
	8	"	\$50,000		17	"	78	\$50,000
	9	"	\$50,000		20	"	79	\$50,000
	16	"	\$50,000		23	"	81	\$50,000
	19	"	\$50,000		24	"	81	\$50,000
	22	"	\$50,000		26	"	85	\$50,000
	23	"	\$50,000		31	"	85	\$50,000
	24	"	\$50,000	Feb.	3	"	86	\$50,000
	29	"	\$50,000		4	"	87	\$50,000
	3	"	\$50,000		14	"	88	\$50,000
	6	"	\$50,000		16	"	91	\$50,000
	9	"	\$50,000		20	"	93	\$50,000
	10	"	\$50,000		21	"	94	\$50,000
	12	"	\$50,000		27	"	94	\$50,000
	17	"	\$50,000		28	"	94	\$50,000
	20	"	\$50,000		29	"	94	\$50,000
	22	"	\$50,000	Mar.	2	"	96	\$50,000
	24	"	\$50,000		5	"	98	\$50,000
	25	"	\$50,000		8	"	98	\$50,000
Mar.	1	"	\$50,000		9	"	99	\$50,000
	2	"	\$50,000		12	"	102	\$50,000
	6	"	\$50,000		16	"	102	\$50,000
	7	"	\$50,000		18	"	102	\$50,000
	8	"	\$50,000		20	"	102	\$50,000
	11	"	\$50,000		21	"	102	\$50,000
	14	"	\$50,000		21	"	102	\$50,000
	15	"	\$50,000		26	"	102	\$50,000
			250,000.00				102	50,000.00

Thomas A. Edison & Co. Sales Notes

1914		1914	
March	21	Bills Pay 16	50,000.00
"	"	"	50,000.00
"	"	"	50,000.00
Apr	7	"	50,000.00
"	1	"	50,000.00
"	2	"	50,000.00
"	4	"	50,000.00
"	6	"	50,000.00
"	11	"	50,000.00
"	13	"	50,000.00
"	15	"	50,000.00
"	18	"	50,000.00
"	19	"	50,000.00
"	26	"	50,000.00
"	28	"	50,000.00
"	29	"	50,000.00
May	1	"	50,000.00
"	2	"	50,000.00
"	3	"	50,000.00
"	6	"	50,000.00
"	7	"	50,000.00
"	8	"	50,000.00
"	9	"	50,000.00
"	15	"	50,000.00
"	16	"	50,000.00
"	20	"	50,000.00
"	21	"	50,000.00
"	23	"	50,000.00
"	27	"	50,000.00
June	3	"	50,000.00
"	6	"	50,000.00
"	10	"	50,000.00
"	13	"	50,000.00
"	17	"	50,000.00
"	20	"	50,000.00
"	22	"	50,000.00
"	24	"	50,000.00
"	29	"	50,000.00
July	1	"	50,000.00
"	2	"	50,000.00
"	6	"	50,000.00
"	9	"	50,000.00
"	11	"	50,000.00
"	15	"	50,000.00
"	20	"	50,000.00
"	25	"	50,000.00
Aug	2	"	50,000.00
"	3	"	50,000.00
"	4	"	50,000.00
"	5	"	50,000.00
"	6	"	50,000.00
"	7	"	50,000.00
"	8	"	50,000.00
"	9	"	50,000.00
"	10	"	50,000.00
"	11	"	50,000.00
"	12	"	50,000.00
"	13	"	50,000.00
"	14	"	50,000.00
"	15	"	50,000.00
"	16	"	50,000.00
"	17	"	50,000.00
"	18	"	50,000.00
"	19	"	50,000.00
"	20	"	50,000.00
"	21	"	50,000.00
"	22	"	50,000.00
"	23	"	50,000.00
"	24	"	50,000.00
"	25	"	50,000.00
"	26	"	50,000.00
"	27	"	50,000.00
"	28	"	50,000.00
"	29	"	50,000.00
"	30	"	50,000.00
"	31	"	50,000.00
"	32	"	50,000.00
"	33	"	50,000.00
"	34	"	50,000.00
"	35	"	50,000.00
"	36	"	50,000.00
"	37	"	50,000.00
"	38	"	50,000.00
"	39	"	50,000.00
"	40	"	50,000.00
"	41	"	50,000.00
"	42	"	50,000.00
"	43	"	50,000.00
"	44	"	50,000.00
"	45	"	50,000.00
"	46	"	50,000.00
"	47	"	50,000.00
"	48	"	50,000.00
"	49	"	50,000.00
"	50	"	50,000.00
"	51	"	50,000.00
"	52	"	50,000.00
"	53	"	50,000.00
"	54	"	50,000.00
"	55	"	50,000.00
"	56	"	50,000.00
"	57	"	50,000.00
"	58	"	50,000.00
"	59	"	50,000.00
"	60	"	50,000.00
"	61	"	50,000.00
"	62	"	50,000.00
"	63	"	50,000.00
"	64	"	50,000.00
"	65	"	50,000.00
"	66	"	50,000.00
"	67	"	50,000.00
"	68	"	50,000.00
"	69	"	50,000.00
"	70	"	50,000.00
"	71	"	50,000.00
"	72	"	50,000.00
"	73	"	50,000.00
"	74	"	50,000.00
"	75	"	50,000.00
"	76	"	50,000.00
"	77	"	50,000.00
"	78	"	50,000.00
"	79	"	50,000.00
"	80	"	50,000.00
"	81	"	50,000.00
"	82	"	50,000.00
"	83	"	50,000.00
"	84	"	50,000.00
"	85	"	50,000.00
"	86	"	50,000.00
"	87	"	50,000.00
"	88	"	50,000.00
"	89	"	50,000.00
"	90	"	50,000.00
"	91	"	50,000.00
"	92	"	50,000.00
"	93	"	50,000.00
"	94	"	50,000.00
"	95	"	50,000.00
"	96	"	50,000.00
"	97	"	50,000.00
"	98	"	50,000.00
"	99	"	50,000.00
"	100	"	50,000.00

Thos. W. Edison & Co. Sales Notes

1914		1914	
July	15	Bills Pay 16	50,000.00
"	20	"	50,000.00
"	22	"	50,000.00
"	24	"	50,000.00
"	26	"	50,000.00
"	28	"	50,000.00
"	30	"	50,000.00
"	31	"	50,000.00
"	32	"	50,000.00
"	33	"	50,000.00
"	34	"	50,000.00
"	35	"	50,000.00
"	36	"	50,000.00
"	37	"	50,000.00
"	38	"	50,000.00
"	39	"	50,000.00
"	40	"	50,000.00
"	41	"	50,000.00
"	42	"	50,000.00
"	43	"	50,000.00
"	44	"	50,000.00
"	45	"	50,000.00
"	46	"	50,000.00
"	47	"	50,000.00
"	48	"	50,000.00
"	49	"	50,000.00
"	50	"	50,000.00
"	51	"	50,000.00
"	52	"	50,000.00
"	53	"	50,000.00
"	54	"	50,000.00
"	55	"	50,000.00
"	56	"	50,000.00
"	57	"	50,000.00
"	58	"	50,000.00
"	59	"	50,000.00
"	60	"	50,000.00
"	61	"	50,000.00
"	62	"	50,000.00
"	63	"	50,000.00
"	64	"	50,000.00
"	65	"	50,000.00
"	66	"	50,000.00
"	67	"	50,000.00
"	68	"	50,000.00
"	69	"	50,000.00
"	70	"	50,000.00
"	71	"	50,000.00
"	72	"	50,000.00
"	73	"	50,000.00
"	74	"	50,000.00
"	75	"	50,000.00
"	76	"	50,000.00
"	77	"	50,000.00
"	78	"	50,000.00
"	79	"	50,000.00
"	80	"	50,000.00
"	81	"	50,000.00
"	82	"	50,000.00
"	83	"	50,000.00
"	84	"	50,000.00
"	85	"	50,000.00
"	86	"	50,000.00
"	87	"	50,000.00
"	88	"	50,000.00
"	89	"	50,000.00
"	90	"	50,000.00
"	91	"	50,000.00
"	92	"	50,000.00
"	93	"	50,000.00
"	94	"	50,000.00
"	95	"	50,000.00
"	96	"	50,000.00
"	97	"	50,000.00
"	98	"	50,000.00
"	99	"	50,000.00
"	100	"	50,000.00

Prof. W. Edison St. Louis Notes.

[illegible]

Our Race up

1910	July	7	29	Rad	95	1029905	Jan	1	Red #1	182	929905
		11			99	1053594		19	Good	97	1053594
	July	7			101	1001102		31	June 2nd	50	1001102
		13			110	1011110		26	"	60	1011110
	Aug	7			115	1011110		31	Mar 01	67	1011110
		14			115	1011110		31	"	71	1011110
	Apr	5			126	1011110		31	"	98	1011110
		20			126	1011110		31	"	100	1011110
		21			126	1011110		31	"	100	1011110
	May	6			135	1011110		31	"	100	1011110
		21			140	1011110		31	"	100	1011110
	Jun	7			150	1011110		31	"	100	1011110
		21			157	1011110		31	"	100	1011110
		19			160	1011110		31	"	100	1011110
	July	7			160	1011110		31	"	100	1011110
		21			160	1011110		31	"	100	1011110
	Aug	6			175	1011110		31	"	100	1011110
		24			180	1011110		31	"	100	1011110
	Sept	7			179	1011110		31	"	100	1011110
		24			191	1011110		31	"	100	1011110
	Oct	7			204	1011110		31	"	100	1011110
		21			210	1011110		31	"	100	1011110
	Nov	7			210	1011110		31	"	100	1011110
		19			210	1011110		31	"	100	1011110
	Dec	7			210	1011110		31	"	100	1011110
		21			210	1011110		31	"	100	1011110
	1911	Jan	9		26	1088781					
		20			32	1088781					
	Feb	8		00534	05	1088781					
		"		00899	06	1088781					
	Feb	20		01091	40	1088781					
		21		01106	44	1088781					
	Mar	3		01195	44	1088781					
		6		01217	45	1088781					
		19		01534	51	1088781					
		21		01546	52	1088781					
		29		01746	56	1088781					
	Apr	4		01743	58	1088781					
		5		01746	"	1088781					
		21		01743	195	1088781					
		22		01927	65	1088781					
	May	5		03082	71	1088781					
		"		03084	"	1088781					
		19		03268	77	1088781					
		"		03269	"	1088781					
	June	5		03082	85	1088781					
		6		03084	"	1088781					

Pay Roll A/C

Jan	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
Jan	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
July	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aug	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Sept	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57			
Oct	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Nov	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dec	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Jan	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
Feb	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
Mar	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
Apr	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
May	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
June	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57
July	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	222	47200.57

Pay Roll A/C

July	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139	4702.008
Aug	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Sept	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008							
Oct	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Nov	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Dec	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
Jan	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
Feb	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
Mar	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
Apr	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
May	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
June	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				
July	19	20	21	22	23	24	25	26	27	28	29	30	31	Land	139 <td>4702.008</td>	4702.008				

Cement Sales

1911	1911	1911	1911
Dec. 27	753274	Dec. 27	14999008 109965748
28 Auto. Aff. Co. 58	716822	30	60 261
30 P. L. 1533, 273	65 117674829		53262846 3461246
		" 27347	3050
	1853, 292		1553272 421430125

Blackburn Street Stand Expenses

1910	1910	1910	1910
Apr. 24	2 3 8 mps	52	1775
Apr. 10	"	73	7725
May 26	"	77	1364
May 9	"	84	294
May 21	London	89	3398
June 7	4 mps	94	1537
Aug. 17	"	111	6695
Oct. 8	"	128	4600
Nov. 21	"	122	2597
Nov. 20	"	141	4628
			271255
Jan. 11	London	165	2908
Jan. 17	Cl. Miller Co.	161	600
Jan. 31	London	168	7632
Feb. 31	Sales Off. Nov.	61	6195
Feb. 21	C. Myers	174	1149
Feb. 28	Sales Off. Nov.	62	3212
Mar. 17	C. Myers	183	4610
Mar. 31	Sales Off. "	65	3230
Apr. 19	C. Myers	194	4561
Apr. 24	"	195	4154
Apr. 30	Sales Off. Reg.	64	12145
May 5	Loyal Com. Co.	201	1380
May 29	C. Myers	209	3228
May 31	Sales Off. Reg.	65	2350
June 30	"	66	1338
July 31	"	67	1343
July 31	8 C. Myers	5	3736
Aug. 25	"	9	3434
Sept. 30	Sales Off. Reg.	68	1707
Sept. 30	"	69	18150
Oct. 31	"	21	695
Oct. 24	C. Myers	31	4598
Oct. 31	"	33	1214
Oct. 31	Sales Off. Reg.	70	7073
Nov. 31	"	35	18220
Nov. 15	Eastwicks	41	808
Nov. 27	C. Myers	47	1670
Nov. 30	Sales Off. Reg.	71	13612
Dec. 30	"	72	15744
			270717
Jan. 9	C. Myers	67	1907
Jan. 26	"	71	813
Jan. 31	Sales Off. Reg.	72	13324
Feb. 29	"	74	14022
Feb. 29	C. Myers	58	816
Mar. 30	Sales Off. Reg.	75	2317
Mar. 31	"	93	3380
			42879
			27085
			Dec. 30 P. L.
			65 220917
			270717
			44719
			42879

Wholesale Warehouse Expenses

1840		1841		1842	
Apr 1	Balance	498.77	Dec. 31	P. & L.	200 2142.71
15	Wm. J. & Co. Sols 78	51.63			
30	Wm. J. & Co. Sols 76	144.18			
	" " 102	0			
May 15	Wm. J. & Co. Sols 107	159.44			
31	Wm. J. & Co. Sols 77	18.13			
June 7	Wm. J. & Co. Sols 103	18.50			
30	Wm. J. & Co. Sols 98	10.68			
July 29	Wm. J. & Co. Sols 106	18.00			
31	Wm. J. & Co. Sols 79	15.45			
	" " 139	75			
Aug 11	Wm. J. & Co. Sols 80	17.20			
Sept 11	Wm. J. & Co. Sols 104	28.10			
30	Wm. J. & Co. Sols 81	20.67			
Oct 31	" " 82	18.44			
Nov 30	" " 83	18.40			
Dec 31	Wm. J. & Co. Sols 84	17.40			
		2142.71			2142.71

Cost of Sales

1840		1841		1842	
Apr 1	Balance	667.37	Dec. 31	Journal	157.96 1079.58
15	Wm. J. & Co. Sols 78	60			
30	Wm. J. & Co. Sols 76	67			
	" " 102	68			
May 15	Wm. J. & Co. Sols 107	81			
31	Wm. J. & Co. Sols 77	82			
June 7	Wm. J. & Co. Sols 103	84			
30	Wm. J. & Co. Sols 98	85			
July 29	Wm. J. & Co. Sols 106	86			
31	Wm. J. & Co. Sols 79	87			
Aug 11	Wm. J. & Co. Sols 80	88			
Sept 11	Wm. J. & Co. Sols 104	89			
30	Wm. J. & Co. Sols 81	90			
Oct 31	" " 82	91			
Nov 30	" " 83	92			
Dec 31	Wm. J. & Co. Sols 84	93			
		1135			988.97 58
Jan 30	Wm. J. & Co. Sols 105	166	Dec. 30	P. & L. 1833.78	956.47 96
31	Wm. J. & Co. Sols 106	167			
Feb 28	Wm. J. & Co. Sols 107	168			
	" " 108	169			
Mar 31	Wm. J. & Co. Sols 109	170			
Apr 30	Wm. J. & Co. Sols 110	171			
May 31	Wm. J. & Co. Sols 111	172			
June 30	Wm. J. & Co. Sols 112	173			
July 31	Wm. J. & Co. Sols 113	174			
Aug 31	Wm. J. & Co. Sols 114	175			
Sept 30	Wm. J. & Co. Sols 115	176			
Oct 31	Wm. J. & Co. Sols 116	177			
Nov 30	Wm. J. & Co. Sols 117	178			
Dec 31	Wm. J. & Co. Sols 118	179			
		1833.78			1833.78

Edison Lushington Rice Co.

Jan	1	2102	13600	5	6	1252	2141
Feb	31	5301	4299	22	1	1492	3246
Mar	31	604	8726	22	1	1693	3272
Apr	30	672	12468	7	7	1943	3542
May	31	813	14449	8	8	1728	12488
June	30	918	18322	8	8	308	27146
July	31	978	16787	22	22	1944	3542
Aug	31	1088	11186	22	22	438	13730
Sept	30	118	11895	22	22	588	13730
Oct	31	1268	10783	22	22	698	13730
Nov	30	1368	10783	22	22	988	13730
Dec	31	1468	10783	22	22	1018	13730
Jan	1	1548	10783	22	22	18	24794
Feb	28	1698	14056	22	22	78	25010
Mar	31	1768	13803	22	22	218	28538
Apr	30	1868	13514	22	22	268	166399
May	31	1994	14352	22	22	408	17522
June	30	2128	17854	22	22	188	25129
July	31	2228	18358	22	22	548	21941
Aug	31	2328	16038	22	22		
Sept	30	2148	16038	22	22		
Oct	31	352	80222	22	22		

Tuckley Paper Bags

1912
Dec 31 Prof. S. Low 100 2662
1913
May 31 Sales 100 581 185 2662

Stock House, Notoken

1912
Jan 31 2, 2nd 100 58 1 2 100
Mar 19 1st 100 58 1 2 100
Apr 20 1st 100 58 1 2 100
May 13 1st 100 58 1 2 100
May 17 1st 100 58 1 2 100

Certified Paper

1912
Jan 31 8000 108 201 100 201 100 201 100
Feb 31 5000 117 201 100 201 100 201 100
Mar 31 2000 125 201 100 201 100 201 100
Apr 31 1000 135 201 100 201 100 201 100
May 31 500 145 201 100 201 100 201 100
Jun 31 250 155 201 100 201 100 201 100
Jul 31 125 165 201 100 201 100 201 100
Aug 31 62 175 201 100 201 100 201 100
Sep 31 31 185 201 100 201 100 201 100
Oct 31 15 195 201 100 201 100 201 100
Nov 31 7 205 201 100 201 100 201 100
Dec 31 3 215 201 100 201 100 201 100

1913
Jan 31 12081 94 12081 94 12081 94 12081 94
Feb 29 5507 1325 394 5507 1325 394 5507 1325 394
Mar 30 3466 395 3466 395 3466 395 3466 395
Apr 31 4162 396 4162 396 4162 396 4162 396
May 31 4162 396 4162 396 4162 396 4162 396
Jun 31 4162 396 4162 396 4162 396 4162 396
Jul 31 4162 396 4162 396 4162 396 4162 396
Aug 31 4162 396 4162 396 4162 396 4162 396
Sep 31 4162 396 4162 396 4162 396 4162 396
Oct 31 4162 396 4162 396 4162 396 4162 396
Nov 31 4162 396 4162 396 4162 396 4162 396
Dec 31 4162 396 4162 396 4162 396 4162 396

Dr. Handley & Son Sales

Dec.	1890	1891	1892
22	Balance	12,006.68	102
24	A. A. R. Co. - 100	57.00	108
27	Exp. S. Palmer	50.00	112
31	Amended	51,208	121
5	Thinks Books	144,185	140
7	Callington & Williams	77.88	285
9	Teste & Williams	57.79	
10	Geo. S. Palmer	22.25	
11	Legal Centre Co.	57,632	
16	Geo. S. Palmer	57.00	
17	Do	64,400	
18	Insurance Callings	51,200	
21	Legal Centre Co.	741.75	
23	Comm. of Geo. S. Co.	21,650	
24	Insurance & Machinery	555.11	
26	Geo. S. Palmer	55,200	
31	Woods & Co. 18	33,622.4	
9	Teste & Williams	127.63	
10	Comm. of Geo. S. Co.	248.4	
10	Legal Centre Co.	841.85	
16	Geo. Palmer	22,613	
21	Legal Centre Co.	25,655	
28	Sum	76	
31	Personal, 1890	2,324.24	
6	Legal Centre Co.	171,435	
8	Legal Centre Co.	24,555	
9	Legal Centre Co.	74,259	
14	Legal Centre Co.	56,331	
16	Legal Centre Co.	128,75	
20	Geo. Palmer	320	
21	Legal Centre Co.	32,530	
23	Do	27,625	
27	Do	25,940	
28	Sum	172.15	
30	Legal Centre Co.	32,410	
31	Sum of 1890	37,438	
6	Sum of 1890	37,438	
7	Sum of 1890	37,438	
7	Legal Centre Co.	39,182	
10	Geo. Palmer	21,375	
11	Teste & Williams	57,159	
11	Geo. Palmer	1,500	
12	Geo. Palmer	17,576	
12	Geo. Palmer	4,693	
15	Do	60,000	
17	Legal Centre Co.	23,500	
20	Sum	11,250	
21	Legal Centre Co.	78,683	
22	Geo. Palmer	147,115	
25	Legal Centre Co.	12,425	
	Sum	17,435	

674156	100
260	100
518672	100
765239	100
755558	100
117845	100
177172	100

Int. Handlg. etc on Sales

[illegible]

Freight, Wdly. etc. on Sales

Aug 5 Balance	12841.32	Aug 9 Journal Pay	4. -	1352. -
5 Loyal Bank	2. -	11 " "	1. -	2869. -
8 Loyal	1533.50	16 " "	5. -	17928. -
9 Loyal Cash Co	29337.5	21 " "	6. -	11952. -
10 Loyal SS Co	25735.5	31 Sales Pay	26. -	10459.61
16 Loyal Bank Co	14448.5	31 " "	29. -	20740. -
18 Cash Co	5340. -	18 Cash Co	16. -	5045. -
19 Loyal Bank Co	27500. -	27 " "	18. -	900. -
23 " "	39218.5	30 Sales Pay	49. -	8963.22
24 Cash Co	16200. -	31 " "	29.5	18635. -
25 Loyal Bank Co	7584. -	Oct 18 " "	29. -	18744.9
29 " "	66645.6	24 " "	31. -	5976. -
31 Loyal Bank Co	4227. -	31 " "	33. -	41852. -
Sept 7 Loyal Bank Co	64525.5	31 " "	69. -	76944.5
9 Loyal Bank Co	61122.5	31 " "	24. -	11515. -
10 Loyal Bank Co	13575.5	Nov 5 " "	38. -	11952. -
11 Loyal Bank Co	25800. -	22 " "	45. -	53784. -
12 Loyal Bank Co	59415.5	23 " "	46. -	11952. -
13 Loyal Bank Co	2500. -	30 Cash Sales Pay	85. -	34444.44
14 Cash Co	4735. -	Dec 14 " "	54. -	77685. -
30 Loyal Bank Co	16476. -	30 Cash Sales Pay	96. -	43798. -
Oct 1 Loyal Bank Co	282400. -	31 " "	8552.30	
6 Loyal Bank Co	36000. -			
7 Loyal Bank Co	98693. -			
8 Loyal Bank Co	900. -			
9 Loyal Bank Co	5000. -			
10 Loyal Bank Co	36000. -			
13 Loyal Bank Co	59986. -			
14 Loyal Bank Co	51873. -			
19 " "	21875. -			
31 " "	46286. -			
Nov 1 Loyal Bank Co	553382. -			
4 Loyal Bank Co	6825. -			
10 Loyal Bank Co	47145. -			
15 Loyal Bank Co	26427. -			
16 Loyal Bank Co	21972. -			
18 Loyal Bank Co	43040. -			
21 Loyal Bank Co	5220. -			
25 Loyal Bank Co	12000. -			
26 Loyal Bank Co	26250. -			
30 Loyal Bank Co	5000. -			
Dec 9 Loyal Bank Co	47128.5			
11 Loyal Bank Co	1500. -			
21 Loyal Bank Co	18745. -			
27 Loyal Bank Co	12000. -			
28 Loyal Bank Co	7279. -			
29 Loyal Bank Co	15000. -			
30 Loyal Bank Co	43136. -			
	43172. -			

Freight, Wdly. etc. on Sales

Dec 30 Balance	855230. -	Dec 30 Cash Sales	62. -	241904. -
1 Loyal Bank Co	163504. -	30 Journal	65. -	12830. -
2 Loyal Bank Co	25344. -	31 Balance		240000. -
3 Loyal Bank Co	1270205. -			1270205. -
Jan 1 Balance	900000. -	Jan 21 Cash Sales	72. -	7881.9
8 Loyal Bank Co	29763. -	Feb 20 Cash Sales	50. -	1200. -
9 Loyal Bank Co	11733. -	29 Cash Sales	51. -	7881.9
10 Loyal Bank Co	46675. -	Mar 12 Cash Sales	57. -	980. -
11 Loyal Bank Co	13. -	13 Cash Sales	58. -	185. -
12 Loyal Bank Co	29 Cash Sales	29 Cash Sales	91. -	7881.9
13 Loyal Bank Co	100. -	30 Cash Sales	100. -	7881.9
14 Loyal Bank Co	113. -	31 Cash Sales	113. -	7881.9
15 Loyal Bank Co	124. -	31 Cash Sales	124. -	7881.9
16 Loyal Bank Co	131. -	31 Cash Sales	131. -	7881.9
17 Loyal Bank Co	137. -	31 Cash Sales	137. -	7881.9
18 Loyal Bank Co	143. -	31 Cash Sales	143. -	7881.9
19 Loyal Bank Co	149. -	31 Cash Sales	149. -	7881.9
20 Loyal Bank Co	155. -	31 Cash Sales	155. -	7881.9
21 Loyal Bank Co	161. -	31 Cash Sales	161. -	7881.9
22 Loyal Bank Co	167. -	31 Cash Sales	167. -	7881.9
23 Loyal Bank Co	173. -	31 Cash Sales	173. -	7881.9
24 Loyal Bank Co	179. -	31 Cash Sales	179. -	7881.9
25 Loyal Bank Co	185. -	31 Cash Sales	185. -	7881.9
26 Loyal Bank Co	191. -	31 Cash Sales	191. -	7881.9
27 Loyal Bank Co	197. -	31 Cash Sales	197. -	7881.9
28 Loyal Bank Co	203. -	31 Cash Sales	203. -	7881.9
29 Loyal Bank Co	209. -	31 Cash Sales	209. -	7881.9
30 Loyal Bank Co	215. -	31 Cash Sales	215. -	7881.9
31 Loyal Bank Co	221. -	31 Cash Sales	221. -	7881.9

9458.26

9458.26

Prepaid Freight 1/2

Dec 30	Sal. Velpete	62.	241904	Jan 30	Sal. Page	105.	262249
Nov 21	Dr. Mags. Burton	89.	175723		Sal. 292.		10125
30	Shanks	97.	453128	Feb 29	" " "	"	11250
18	Dr. 20	89.	453128	" " "	" " "	111.	673825
30	Smith	162.	481666	Mar. 30	" " "	290.	21973
May 29	Dr. Mags. Burton	112.	331143	" " "	" " "	179.	208888
31	Shanks	115.	1111724	Apr. 4	" " "	95.	40
June 30	"	176.	468866	30	" " "	156.	413652
July 31	"	139.	266789		Sal. 287.		38813
Dec. 31	Geo. M. B. Burton	150.	330088	May 31	Journal. Burton	113.	6565
	Works	150.	1050816	" " "	Sal. 185.		627609
Sept. 30	"	164.	372089	" " "	Sal. 285.		10186
Oct. 31	"	172.	382888	June 29	" " "	217.	719306
Nov. 30	"	114.	382128	" " "	Sal. 284.		2125
Dec. 31	"	198.	397288	July 31	" " "	282.	578
				" " "	" " "	248.	637671
				Aug 31	" " "	33.	859010
				" " "	Book. "		18640
				Sept 30	" " "	8.	74335
				" " "	" " "	65.	506903
				Oct. 31	" " "	96.	724110
				" " "	Book. 10.		16825
				Nov. 30	" " "	173.	746385
				" " "	Book. 11.		6989
				Dec 31	" " "	12.	3833
				" " "	" " "	148.	944204
				Journal	300.		74615371
				Balance. Sal.	320.		10653
							7155595

7155595

Advertising

1911	15	to date Dec 31/10	49.	2.07	Dec 10	of Cash	125.	112.50
1911	31	Index Reg.	170.	1.14	Dec 10	"	11.	11.60
		" Cash	100.	3.97	Dec 31	Refund	155.	2552
		" Index Reg.	39.	3.88		Journal	156.	4104.57
1911	4	" Cash	105.	22.50				
	14	"	105.	40.00				
	14	"	55.	4.77				
	28	Index Register	177.	310.61				
	"	" off. "	41.	2589.46				
1911	10	" Cash	17.	1.00				
	31	Index Register	197.	45.14				
	"	" off. "	40.	325.71				
	"	" (work)	69.	48.68				
Apr.	30	Index Reg.	217.	43.84				
	"	" (work)	57.	62.53				
	"	Index off. Reg.	45.	5864.87				
May	31	Index Reg.	709.	135.74				
	"	" Index off. Reg.	47.	2670.60				
	"	" (work)	92.	2244.44				
June	7	" & May	91.	3.00				
	30	Index Reg.	758.	170.14				
	"	" off. "	47.	2170.00				
	"	" (work)	77.	1164.56				
July	30	Index Reg.	277.	113.14				
	"	" off. "	50.	2260.07				
	31	Index off. Reg.	108.	2294.73				
Aug.	31	Index Reg.	29.	2305.58				
	"	" off. "	51.	2029.08				
	"	" (work)	116.	2405.61				
Sept.	27	Index Reg.	122.	3.50				
	30	Index Reg.	53.	244.93				
	"	" (work)	100.	276.40				
	"	Index off. Reg.	50.	2789.64				
Oct.	31	" Reg.	77.	2104.78				
	"	Index off. Reg.	55.	2607.54				
	"	" (work)	125.	3057.82				
Nov.	5	" & Nov.	129.	100.				
	30	Index Reg.	94.	305.29				
	"	" (work)	104.	124.11				
	"	Index off. Nov.	57.	3473.89				
Dec.	31	Index Reg.	102.	3549.79				
	"	Index off. Nov.	55.	3964.15				
	"	" (work)	154.	151.27				
				4118.619				
Jan 31	31	Index off. Nov.	169.	237.12	Feb 28	Balance		3958.61
Feb.	10	Journal	172.	264.88				
	28	Index off. Nov.	62.	152.88				
				5038.63				

4118.619

3958.61

5938.65

Advertising

Feb 28	Balance	39738.43	Mar 31	Car. news stand	183.	14.000
"	Drinks	176.	Dec 30	P. & L.	65.	1403.1170
Mar 31	"	188.				
"	Sales Office	65.				
Apr 19	Journal 13/10/1911	1500				
"	"	196.				
30	Sales Off Reg	44				
"	Drinks	199.				
May 31	Sales Off Reg	65				
"	Drinks	212.				
June 28	C. Mages	220.				
30	Drinks	222.				
"	Sales Off Reg	66.				
July 31	Drinks	235.				
"	Sales Off Reg	67.				
Aug 31	"	68.				
"	Drinks	215.57				
Sept 30	Sales Reg	49.				
"	Sales Off Reg	69.				
"	Drinks	21.				
Oct 31	Sales Reg	69.				
"	Nov	70.				
"	Drinks	35.				
Nov 30	Sales Off Reg	71.				
"	Drinks	49.				
Dec 30	Sales Off Reg	72.				
Jan 31	Sales Off Reg	73.				
Feb 29	"	74.				
Mar 12	Drinking	84.				
30	Sales Off Reg	75.				
"	Drinks	73.				
Apr 12	Interad. Journal	95.				
"	"	97.				
30	Sales Off Reg	76.				
"	Aug	102.				
May 31	Sales Off Reg	77.				
"	Drinks	115.				
June 30	Sales Off Reg	78.				
"	"	126.				
July 31	Sales Off Reg	79.				
"	Drinks	139.				
Aug 31	Sales Off Reg	80.				
"	Drinks	150.				
Sept 30	Sales Off Reg	81.				
"	Drinks	143.				
Oct 31	Sales Off Reg	82.				
"	Drinks	77.				

Advertising

Oct 31	Balance	708.	Dec 31	Journal	102.	800.967
Nov 30	Sales Off Reg	83.				
"	Drinks	184.				
Dec 31	Sales Off Reg	84.				
"	Drinks	198.				
		800.967				800.967

Commission and Sales

1910			1910		
Jan 31	P. H. Reson	53	51.91	Dec 31	Journal
Feb 28	"	19	157.53	156	789.53
Mar 31	"	66	384.97		
Apr 30	"	20	22.15		
May 31	"	9	268.46		
			989.53		989.53

Newark Sales Office

1911			1911		
Oct 31	Sales Off	70	924.46	Dec 30	Journal
Nov 30	"	71	823.61	65	1724.97
Dec 30	"	72	808.45		
			1030.76		
Jan 31	Sales Off	73	654.89	May 31	Int'l Sales Exp
Feb 29	"	74	738.72	15	47.30
Mar 30	"	75	823.76	June 30	"
Apr 30	"	76	823.76	138	21.60
May 31	"	77	702.78	July 31	"
June 30	"	78	818.08	138	44.10
July 31	"	79	618.41	Aug 31	"
Aug 31	"	80	806.42	159	161.20
Sept 30	"	81	947.83	Sept 30	"
Oct 31	"	82	888.83	161	82.80
Nov 30	"	83	854.68	Oct 31	"
Dec 31	"	84	854.68	172	21.60
			1030.76	Nov 30	"
				182	17.80
				Dec 31	"
				196	17.80
				Journal	200
					1030.76

Philu Sales office

Jan.	31	Sales off. Reg.	39.	21,457.0
Feb.	28	" " "	41.	21,896.88
Mar.	31	" " "	42.	22,091.42
Apr.	30	Sales off. Reg.	46.	22,090.72
May	31	" " "	49.	22,090.72
June	30	" " "	49.	22,090.72
July	31	" " "	60.	22,090.72
Aug.	31	" " "	61.	22,090.72
Sept.	30	" " "	63.	22,090.72
Oct.	31	Sales off. Reg.	65.	22,090.72
Nov.	30	" " "	67.	22,090.72
Dec.	31	" " "	68.	22,090.72
				309,143.8
Jan.	31	" " "	61.	26,120.8
Feb.	28	" " "	62.	26,120.8
Mar.	31	" " "	63.	26,120.8
Apr.	30	Sales off. Reg.	64.	26,120.8
May	31	" " "	65.	26,120.8
June	30	" " "	66.	26,120.8
July	31	" " "	67.	26,120.8
Aug.	31	" " "	68.	26,120.8
Sept.	30	" " "	69.	26,120.8
Oct.	31	Sales off. Reg.	70.	26,120.8
Nov.	30	" " "	71.	26,120.8
Dec.	31	" " "	72.	26,120.8
				309,143.8
Jan.	31	Sales off. Reg.	73.	26,120.8
Feb.	29	" " "	74.	26,120.8
Mar.	31	" " "	75.	26,120.8
Apr.	30	" " "	76.	26,120.8
May	31	" " "	77.	26,120.8
June	30	" " "	78.	26,120.8
July	31	" " "	79.	26,120.8
Aug.	31	" " "	80.	26,120.8
Sept.	30	" " "	81.	26,120.8
Oct.	31	" " "	82.	26,120.8
Nov.	30	" " "	83.	26,120.8
Dec.	31	" " "	84.	26,120.8
				309,143.8

Oct. 5. Philu Sales office
Dec. 31. Journal

Dec. 31. Journal

Dec. 31. Journal

Dec. 31. Journal

229,561.3

New York Sales Office

1910				1911				
Jan.	31	Sales off Reg	39	4,145.70	Aug. 5	of 4000 lbs	55	17,600
Feb.	28	"	41	4,638.75	Sept. 20	L. Mearns	76	1,316.00
Mar.	31	"	43	4,722.94	Aug. 15	H. Bank Co	111	2,333.25
Apr.	30	"	45	4,629.43	Dec. 31	"	155	2,800.00
May	31	"	47	4,264.46	"	Journal	168	44,299.00
June	30	"	49	4,236.66				
July	30	"	50	4,645.78				
Aug.	31	"	51	4,298.88				
Sept.	30	"	53	4,432.45				
Oct.	31	"	55	4,822.74				
Nov.	30	"	57	4,284.66				
Dec.	31	"	58	4,586.54				
				45,076.49				45,076.49
Jan.	31	"	61	5,593.81	Aug. 25	H. Bank Co	8	17,600
Feb.	28	"	62	2,041.82	Dec. 30	"	62	2,201.00
Mar.	31	"	63	3,842.93	"	Journal	65	36,515.94
Apr.	30	Sales off Reg	64	3,712.20				
May	31	"	65	3,055.53				
June	30	"	66	4,268.50				
July	31	"	67	3,014.38				
Aug.	31	"	68	2,722.08				
Sept.	30	"	69	3,133.23				
Oct.	31	"	70	3,228.05				
Nov.	30	"	71	2,015.33				
Dec.	30	"	72	2,750.00				
				26,923.00				26,923.00
Jan.	31	Sales off Reg	73	2,653.45	July 31	Entschladen	115	7,622
Feb.	29	"	74	2,637.23	Aug. 30	"	175	1,160
Mar.	30	"	75	2,637.03	July 31	"	138	2,188
Apr.	30	"	76	2,576.13	Aug. 31	"	149	3,835
May	31	"	77	2,547.52	Sept. 30	"	161	6,600
June	30	"	78	2,471.11	Oct. 31	"	172	4,000
July	31	"	79	2,786.80	Nov. 30	"	182	7,525
Aug.	31	"	80	2,664.45	Dec. 31	"	191	2,470
Sept.	30	"	81	2,665.78	"	H. Bank Co	199	2,530
Oct.	31	"	82	2,622.28	"	Journal	200	32,123.72
Nov.	30	"	83	2,411.84				
Dec.	31	"	84	2,011.60				
				32,703.02				32,703.02

Pittsburgh Sales Office

1910				1911				
Jan	31	Sales Office	29.	85399	Jan 24	Sales Office	7.	17319
Feb	28	"	"	164366	Mar 20	Sales Office	49.	1625
Mar	31	"	"	43	Dec 31	Journal	167.	300147
Apr	30	"	"	115				
				23491				32391
Jan	31	"	"	61.	Dec 30	Journal	65.	741765
Feb	28	"	"	62.				
Mar	31	"	"	65				
Apr	19	Journal	194	26765				
	30	Sales Office	64	25476				
May	31	"	"	65				
June	30	"	"	66				
July	31	"	"	67				
Sept	30	"	"	69				
Oct	24	Journal	31	15048				
	31	Sales Office	70	27400				
Nov	30	"	"	71				
Dec	30	"	"	72				
				27172				
Jan	31	Sales Office	73	25663	Dec 31	Journal	300.	741765
Feb	29	"	"	74				
Mar	30	"	"	75				
Apr	30	"	"	76				
May	31	"	"	77				
June	30	"	"	78				
July	31	"	"	79				
Sept	30	"	"	80				
Oct	30	"	"	81				
Nov	31	"	"	82				
Dec	31	"	"	83				
				27257				
				281871				281871

Boston (Inland) Office

1810		1811		1812		1813		1814		1815	
Jan	31	Salad-off Reg	39	1976.61	Dec	31	Journal	156	30,559.29		
Feb	29	Salad-off Reg	41	1,744.68							
Mar	31	Salad-off Reg	43	1,808.81							
Apr	30	Salad-off Reg	45	1,118.80							
May	31	Salad-off Reg	47	1,388.18							
June	30	" " "	49	1,344.19							
July	31	" " "	50	1,412.87							
Aug	31	" " "	51	1,492.27							
Sept	30	" " "	52	1,518.78							
Oct	31	" " "	53	1,486.81							
Nov	30	" " "	54	1,463.27							
Dec	31	" " "	55	1,116.47							
				20,559.29	Ac. 30 Journal				20,559.29		
Jan	31	" " "	61	1,958.81							
Feb	28	" " "	62	2,578.38							
Mar	31	" " "	63	2,644.83							
Apr	19	Journal N York	194	1,150.80							
Apr	30	Salad-off Reg	64	1,237.80							
May	31	" " "	65	1,300.31							
June	30	" " "	66	1,377.14							
July	31	" " "	67	1,450.34							
Aug	31	" " "	68	1,608.71							
Sept	30	" " "	69	1,612.87							
Oct	31	" " "	70	1,612.28							
Nov	30	" " "	71	1,707.16							
Dec	30	" " "	72	1,572.66							
				14,888.37	Ac. 30 Journal				14,888.37		
Jan	31	Salad-off Reg	73	1,251.14	May	31	Salad-off Reg	115	1,554		
Feb	29	" " "	74	1,733.87	June	30	" " "	116	1,690		
Mar	30	" " "	75	1,812.33	July	31	" " "	117	1,890		
Apr	30	" " "	76	1,812.33	Aug	31	" " "	118	1,890		
May	31	" " "	77	1,812.33	Sept	30	" " "	119	1,890		
June	30	" " "	78	1,812.33	Oct	31	" " "	120	1,890		
July	31	" " "	79	1,812.33	Nov	30	" " "	121	1,890		
Aug	31	" " "	80	1,812.33	Dec	31	Journal	200	2,347.67		
Sept	30	" " "	81	1,812.33							
Oct	31	" " "	82	1,812.33							
Nov	30	" " "	83	1,812.33							
Dec	31	" " "	84	1,812.33							
				23,476.73	Ac. 30 Journal				23,476.73		

Savannah Sales Office

		Germanian Sales Office		1910		
Jan	31	Saldo off Rec	39.	560.45	Dec. 31 Journal	186. 10 51 0 9.
Feb	28	" " "	43.	688.68		
Mar	31	" " "	43.	766.68		
Apr	30	" " "	46.	788.94		
May	31	" " "	47.	838.94		
June	30	" " "	49.	888.94		
July	31	" " "	50.	888.94		
Aug	31	" " "	51.	888.94		
Sept	27	Income off Rec	121.	655.37		
Oct	31	" " "	50.	424.87		
Nov	30	" " "	55.	912.57		
Dec	31	" " "	57.	926.95		
			58.	749.95		
				1001.12.9		
Jan	31	" " "	61.	994.26	Dec. 31 Journal	10 51 0 9
Feb	28	" " "	62.	782.77		8 01 2 63
Mar	31	" " "	65.	827.18		
Apr	19	Journal off Rec	194.	827.18		
	30	Saldo off Rec	84.	827.18		
May	31	" " "	65.	827.18		
June	30	" " "	66.	827.18		
July	31	" " "	67.	827.18		
Aug	23	" " "	8.	827.18		
	31	Saldo off Rec	68.	827.18		
Sept	30	" " "	69.	827.18		
Oct	19	Journal	29.	1500.00		
	24	" Dec	51.	1000.		
	27	C-34111 30 Dec	44.	3500.		
	31	Saldo off Rec	70.	3500.00		
Nov	30	Saldo off Rec	71.	3500.00		
	30	Saldo off Rec	71.	3500.00		
Dec	30	" " "	72.	3500.00		
				801.263		
Jan	31	Saldo off Rec	73.	237.12	Aug 31 Saldo off Rec	149. 1600.
Feb	29	" " "	74.	237.12	Dec. 31 Journal	200. 27 6 7 7.
Mar	30	" " "	75.	237.12		
Apr	30	" " "	76.	237.12		
May	31	" " "	77.	237.12		
June	30	" " "	78.	237.12		
July	31	" " "	79.	237.12		
Aug	31	" " "	80.	237.12		
Sept	30	" " "	81.	237.12		
Oct	31	" " "	82.	237.12		
Nov	30	" " "	83.	237.12		
Dec	31	" " "	84.	237.12		
				27 2 8 7 7		

Sales of Scrap.

1910	1910	1910	1910	1910	1910	1910	1910	1910	1910
Mar	27	2.84 2-15 14	51	10.45	May	5	2.84 2-15 14	51	92.49
	8	"	62	92.49		1	"	46	7.81
	31	2-15 14	68	10.45	Apr	30	2.84 2-15 14	79	137.88
Apr	30	"	82	89.49	May	24	2-15 14	7	15.85
May	31	"	92	89.49	June	1	"	7	24.40
June	30	"	99	89.49	Dec	18	2.84 2-15 14	111	157.62
July	31	"	109	89.49	Jan	1	"	119	23.62
Aug	31	"	116	89.49					
Sept	30	"	116	89.49					
Oct	31	"	130	89.49					
Nov	30	"	144	89.49					
Dec	31	"	154	89.49					
		" Journal	186	89.49					
				220.82					220.82
Feb	28	Stakes	176	11.17	Feb	27	Stakes	175	59.65
Mar	13	Stakes	181	55.9	Mar	5	Stakes	179	59.18
	14	Stakes	182	57.1		16	Stakes	182	62.22
	31	Stakes	188	65.0		25	Stakes	184	108.56
Apr	30	"	199	21.30	May	5	Stakes	202	119.08
May	31	"	212	17.6	June	31	Stakes	10	56.75
June	30	"	222	10.7	July	27	Stakes	19	21.53
July	31	"	233	20.7	Aug	24	Stakes	46	38.53
Aug	31	"	11	12.3	Dec	6	Stakes	51	89.56
Sept	30	"	21	23.4		30	"	63	35.12
Oct	6	Stakes	23	18.2					
	31	Stakes	35	20.0					
Nov	30	"	49	21.6					
Dec	30	Stakes	60	21.8					
	30	Stakes	65	26.2					
				35.6					35.6
Jan	30	Stakes	93	73.4	Jan	30	Stakes	77	32.66
Feb	30	"	102	17	Feb	29	Stakes	51	39.00
Mar	30	"	116	10.9	Mar	31	Stakes	115	65.25
Apr	31	"	129	15.6	Apr	24	Stakes	123	14.90
May	31	"	172	16.6	May	23	Stakes	134	88.77
June	30	"	184	18.8	June	9	Stakes	188	70.37
July	31	"	198	13.2	July	16	Stakes	159	73.12
Aug	30	"	200	17.4	Aug	19	Stakes	197	61.06
		" Profits Loss		19.4	Aug	31	Stakes		73.12
				19.4					73.12
				19.4					73.12

Farnes afi

Dec	31	Yorks	15th	155834	Dec 31	Journal	156	244,146.4
"	"	Journal	106	85120				
				244,146.3				244,146.3
Dec	30	P & L	65	105773	Dec 30	Journal	66	105273
Dec	31	Wicks	119	667797	Dec 31	Journal	120	667797

Dec. 30 ¹⁹¹¹	P. & L.	65	1057.73	Dec. 30 ¹⁹¹¹	Journal	64	1052.73
Dec. 31 ¹⁹¹²	Wages	199	667.99	Dec. 31 ¹⁹¹²	Journal	200	667.99

Dec. 31 ¹⁹¹² Works 199 662799 Dec. 31 ¹⁹¹² Journal 200 662799

[illegible][illegible]

Fertilizer ap

June 28	Cash on hand	219.	26	June 28.	Balance	70841
30	Wicks	222.	261446	30	Sales Pgs	53075
July 1	Reserve Fund	728.	150	31	"	20475
"	Sticks	235.	153544	31	"	527449
Aug 16	Bank of N.Y.	5.	2000	Sept 30.	"	689844
31	Reserve Fnd	10.	1250	Oct 31.	"	14344
"	Wicks	11.	13527	Nov 29.	"	77108
Sept 28	Lawrence & Ward	19.	1288	Dec 30.	"	14425
30	Wicks	21.	144442			
Oct 31.	"	35.	17044			
Nov 30.	"	49.	61048			
Dec 30.	"	62.	32275			
	"	63.	68846			
30 P.O.L.		65.	94228			

Jan	17	B. Caltrani	69.	8550	Jan	30	John Pige	183	282.	75 16.37
Feb	7	A. B. B. Caltrani	143	79.	150	Feb	29	1572.	39.750	
Mar	21	Amos and Clara	139	59.	89	Mar	12	Amos and Clara	87	21.238
	30	John	93	32.28	63	30	John	741	740.	125.25
Apr	27	Amos and Clara	115	100.	130	Apr	30	1750	283.	36.51
	30	John	102	87.13	73	May	31	7613	285.	154.76
May	13	John	107.	700	May	29	74	3432	74.	6.20
	27	Amos and Clara	110.	55	May	31	74	5972	787.	12.74
	31	John	115	122	May	31	74	2134	4.	54.29
June	8	C. B. B. Caltrani	119.	1500	Jun	30	1387	8.	76.725	16.76
	24	C. B. B. Caltrani	123.	200	Jun	31	74	10.	16.76	24.2
	27	John	123.	2000	Jun	27	Amos and Clara	74	100.	24.2
	30	John	131	63	Jun	30	1443	418.	11.	24.28
July	9	John and Clara	136.	86.45	Jul	31	2474	12.	27.9	43.14
	16	John	137.	883			Inventories	76.		43.14

[illegible]

Interest and Disbursements

1910	29	2	Chas.	51.2	260.15	1910	5	by bal	94.5	592
	31				262.00		7		95.0	27
	29			12.2	3.24					20
	29		Bank Int	99.5	100.00					9.15
	31		Chas. ed	10.0	100.25		15		77.5	20.2
			ed		100.25					500.00
	7		Bank	100.0	100.00			Chas. ed	100.0	100.00
	29		Chas.	59.5	7.50		16		100.0	500.00
			W. H. H. H.		112.50		30	Chas. ed	100.0	100.00
			Chas. ed	115.0	139.10		30	Journal	100.0	100.00
			ed		100.00		31	Chas. ed	100.0	100.00
Mar	3		W. H. H. H.	62.0	99.17		1	Bank	100.0	100.00
	11		W. H. H. H.	60.0	87.0		12		100.0	100.00
	24		W. H. H. H.	60.0	27.0		31	Chas. ed	100.0	100.00
					118.0		30	Bank	100.0	100.00
	29		W. H. H. H.		150.00		12		100.0	100.00
	30		Chas.	11.0	10.00		16	W. H. H. H.	100.0	100.00
			W. H. H. H.		150.00		30	Bank	100.0	100.00
			Chas. ed	12.0	20.12		31	Chas. ed	100.0	100.00
					100.00					100.00
Apr	5		W. H. H. H.	71.0	20.00		7	W. H. H. H.	100.0	100.00
	6				8.0		30	Chas. ed	100.0	100.00
	16		W. H. H. H.	70.0	47.50		5	W. H. H. H.	100.0	100.00
	29		W. H. H. H.		100.00		11		100.0	100.00
			Chas.		32.16		25		100.0	100.00
	30		W. H. H. H.	79.0	47.50		25	Chas. ed	100.0	100.00
			Chas. ed	10.0	100.00		30	W. H. H. H.	100.0	100.00
					100.00		31	Chas. ed	100.0	100.00
May	6		W. H. H. H.	11.0	100.00		25	Chas. ed	100.0	100.00
			W. H. H. H.		100.00		29	Chas. ed	100.0	100.00
			Chas. ed	10.0	100.00		30	Chas. ed	100.0	100.00
					100.00		31	Chas. ed	100.0	100.00
June	13		W. H. H. H.	10.0	100.00		29	Chas. ed	100.0	100.00
	30		W. H. H. H.	77.0	100.00		30	Chas. ed	100.0	100.00
			Chas.		100.00					100.00
July	14		W. H. H. H.	100.0	100.00					100.00
			Chas. ed	10.0	100.00					100.00
			Chas. ed	10.0	100.00					100.00
			W. H. H. H.	100.0	100.00					100.00
			Chas. ed	10.0	100.00					100.00
Aug	30		W. H. H. H.	100.0	100.00					100.00
			Chas.		100.00					100.00

Interest & Disbursements

1910	31	2	Chas.	51.2	260.15	1910	5	by bal	94.5	592
	31				262.00		7		95.0	27
	29			12.2	3.24					20
	29		Bank Int	99.5	100.00					9.15
	31		Chas. ed	10.0	100.25		15		77.5	20.2
			ed		100.25					500.00
	7		Bank	100.0	100.00			Chas. ed	100.0	100.00
	29		Chas.	59.5	7.50		16		100.0	500.00
			W. H. H. H.		112.50		30	Chas. ed	100.0	100.00
			Chas. ed	115.0	139.10		30	Journal	100.0	100.00
			ed		100.00		31	Chas. ed	100.0	100.00
Mar	3		W. H. H. H.	62.0	99.17		1	Bank	100.0	100.00
	11		W. H. H. H.	60.0	87.0		12		100.0	100.00
	24		W. H. H. H.	60.0	27.0		31	Chas. ed	100.0	100.00
					118.0		30	Bank	100.0	100.00
	29		W. H. H. H.		150.00		12		100.0	100.00
	30		Chas.	11.0	10.00		16	W. H. H. H.	100.0	100.00
			W. H. H. H.		150.00		30	Bank	100.0	100.00
			Chas. ed	12.0	20.12		31	Chas. ed	100.0	100.00
					100.00					100.00
Apr	5		W. H. H. H.	71.0	20.00		7	W. H. H. H.	100.0	100.00
	6				8.0		30	Chas. ed	100.0	100.00
	16		W. H. H. H.	70.0	47.50		5	W. H. H. H.	100.0	100.00
	29		W. H. H. H.		100.00		11		100.0	100.00
			Chas.		32.16		25		100.0	100.00
	30		W. H. H. H.	79.0	47.50		25	Chas. ed	100.0	100.00
			Chas. ed	10.0	100.00		30	W. H. H. H.	100.0	100.00
					100.00		31	Chas. ed	100.0	100.00
May	6		W. H. H. H.	11.0	100.00		25	Chas. ed	100.0	100.00
			W. H. H. H.		100.00		29	Chas. ed	100.0	100.00
			Chas. ed	10.0	100.00		30	Chas. ed	100.0	100.00
					100.00		31	Chas. ed	100.0	100.00
June	13		W. H. H. H.	10.0	100.00		29	Chas. ed	100.0	100.00
	30		W. H. H. H.	77.0	100.00		30	Chas. ed	100.0	100.00
			Chas.		100.00					100.00
July	14		W. H. H. H.	100.0	100.00					100.00
			Chas. ed	10.0	100.00					100.00
			Chas. ed	10.0	100.00					100.00
			W. H. H. H.	100.0	100.00					100.00
			Chas. ed	10.0	100.00					100.00
Aug	30		W. H. H. H.	100.0	100.00					100.00
			Chas.		100.00					100.00

Interest & Discount

May 31 Balance	201.	2350.91	May 31 Cash & Co. Bank	80.	66.12
" Rice Pay	60.	17.26	June 30 "	79.	12.38
" Cash Bank	80.	2350.91	July 27 C. Myers	250.	208.
June 30 Rice Pay	2.	86.49	31 Cash & Co. Bank	21.2.	34.79
" Cash Bank	78.	168.18	31 Cash & Co. Bank	17.	39.47
July 14 Cash	221.	5000	Sept. 30 "	32.	28.27
31 Cash & Co. Bank	113.	137.33	Oct. 31 "	45.	24.43
" Rice Pay	2.	86.49	Nov. 30 "	57.	28.27
Aug 31 " "	5.	36.44	Dec. 30 "	72.	68.74
Sept. 16 S. A. Williams	17.	43.77	30 P & L	65.11	1087.34
30 Rice Pay	7.	46.65			
" Cash	32.	123.45			
Oct. 31 "	45.	108.02			
" Rice Pay	9.	25.50			
Nov. 16 Smith & Co.	42.	68.75			
31 Rice Pay	11.	12.91			
" Cash	57.	135.70			
Dec. 7 "	61.	66.1			
30 Rice Pay	13.	35.23			
" Cash	72.	199.25			
" Sandwick	61.	5824.55			
		11143.27			
Jan 22 Cash	70.	5000	Jan 19 Cash & Co. Bank	78.	05.
31 Rice Pay	14.	212.38	22 C. Myers	70.	155.
" Cash & Co. Bank	72.	7800.65	15 Cash & Co. Bank	69.	2386.
" Cash	85.	430.80	31 Cash & Co. Bank	85.	110.04
Feb 27 Cash & Co. Bank	81.	162.58	Feb 17 "	82.	83.
" Rice Pay	15.	7800.65	29 "	95.	158.18
" Cash	95.	43.550	Mar. 13 "	101.	20.8
Mar 8 Cash & Co. Bank	86.	57.99	30 " "	107.	66.37
" Cash	15.	18.96	Apr. 5 "	111.	94.8
Apr 8 Cash & Co. Bank	86.	666.	5 " "	109.	15
30 Rice Pay	16.	210.00	20 " "	120.	32.99
" Cash & Co. Bank	91.	32.20	May 6 Cash & Co. Bank	105.	31.44
" Cash	14.	7800.65	29 Balance	41.21	1.37
Apr. 29 Cash & Co. Bank	100.	43.550			
30 Rice Pay	19.	178.72			
" Cash	120.	40.50			
" Cash & Co. Bank	100.	28.28			
May 6 Cash & Co. Bank	101.	192.58			
13 Cash & Co. Bank	107.	43.550			
20 Cash & Co. Bank	109.	83.33			
28 Cash & Co. Bank	110.	311			
29 Cash & Co. Bank	111.	79.17			
		11143.27			

Interest & Discount

May 24 Balance	415.18	37	May 31 Cash & Co. Bank	135.	155.95
31 Rice Pay	40.	38.58	June 29 "	131.	532.3
" Cash	135.	146.08	July 31 "	31.	672.4
" Cash & Co. Bank	113.	43.550	Aug. 9 "	39.	91.
" "	"	264.551	31 "	49.	134.15
June 12 Cash & Co. Bank	120.	53.33	Sept. 5 " "	51.	12.1
24 Rice Pay	21.	404.70	7 " "	53.	17.5
" Cash	13.	116.22	20 " "	29.	65
" Journal	124.	846.18	31 " "	65.	61.25
" "	"	436.77	Oct. 1 " "	66.	20.1
July 23 Cash & Co. Bank	138.	5000	2 " "	67.	12.
31 Rice Pay	22.	26.63	31 " "	81.	200
" Cash	31.	158.581	Nov. 23 " "	85.	30.17
" Journal	139.	846.18	30 " "	103.	160
" "	"	436.77	Dec. 5 " "	102.	140.85
Aug. 31 Rice Pay	23.	27.305	7 " "	104.	6.36
" Cash	49.	181.14	24 " "	115.	250
" Journal	149.	846.18	31 " "	119.	348
Sept. 30 Rice Pay	76.	41.970	" " "	120.	144.53
27 S. A. Williams	158.	160.00	" " "	120.	12.97
30 " "	65.	168.21			
Oct. 31 Cash & Co. Bank	160.	546.18			
" " "	"	436.77			
Nov. 31 Rice Pay	28.	420.75			
29 S. A. Williams	161.	750			
31 " "	85.	11.667			
30 Cash & Co. Bank	170.	863.93			
" " "	171.	436.77			
Dec. 13 Cash & Co. Bank	177.	68.75			
30 Rice Pay	30.	363.62			
" Cash	102.	142.49			
" Cash & Co. Bank	181.	863.93			
31 " "	171.	436.77			
Dec. 31 Rice Pay	32.	24.365			
" Cash	119.	67.20			
" Cash & Co. Bank	195.	863.93			
" " "	"	436.77			
" Sandwick	196.	416.2			
" Cash & Co. Bank	"	746.62			
		1309.572			

Bond Interest

1910				1910			
Jan	31	to another day	7500000	Dec	31	Journal	7500000
Feb	28	"	7500000				
Mar	31	"	7500000				
Apr	30	"	7500000				
May	31	"	7500000				
June	30	"	7500000				
July	31	"	7500000				
Aug	31	"	7500000				
Sept	30	"	7500000				
Oct	31	"	7500000				
Nov	30	"	7500000				
Dec	31	"	7500000				
75000000				75000000			
Jan	31	"	7500000	Dec	31	Journal	7500000
Feb	28	"	7500000				
Mar	31	"	7500000				
Apr	30	"	7500000				
May	31	"	7500000				
June	30	"	7500000				
July	31	"	7500000				
Aug	31	"	7500000				
Sept	30	"	7500000				
Oct	31	"	7500000				
Nov	30	"	7500000				
Dec	31	"	7500000				
75000000				75000000			
Jan	31	Amount Bonded 72.	7500000	Dec	31	Journal	7500000
Feb	29	"	7500000				
Mar	29	"	7500000				
Apr	30	"	7500000				
May	31	"	7500000				
June	29	"	7500000				
July	31	"	7500000				
Aug	31	"	7500000				
Sept	30	"	7500000				
Oct	30	"	7500000				
Nov	"	"	7500000				
Dec	31	"	7500000				
75000000				75000000			

General Expenses

1910				1910			
July	21	By Cash	104.	July	1	By Cash	47.
Aug	21	"	111.	Aug	11	" Cash	107.
Aug	31	"	122.	Aug	28	Grand Sal.	285.
"	"	Worke	68.	"	7	" Cash	125.
Apr	30	" Cash	114.	Aug	27	"	175.
"	"	Worke	82.	Aug	6	"	175.
May	6	Worke Bn. Co.	84.	Aug	30	"	215.
"	31	" Cash	144.	Dec.	31	Journal	156.
"	"	Worke	72.				260.209
Jun	7	Worke	95.				
"	17	Worke	95.				
"	30	" Cash	160.				
"	"	Worke	79.				
July	30	" Cash	174.				
"	31	Worke, Book	108.				
Aug	31	" Cash	144.				
"	"	Worke	116.				
Sept	7	Worke	119.				
"	27	" Cash	125.				
"	30	" Cash	201.				
"	"	Worke	176.				
Oct	31	" Cash	215.				
"	"	Worke	185.				
Nov	30	" Cash	15.				
"	"	Worke	166.				
Dec.	31	" Cash	24.				
"	"	Worke	154.				
			266.209				
Jan	11	E. Myers	165.	Jan	12	Cash	27.
"	31	Cash, Book	34.	Feb	3	" (Cash)	20.
"	31	Worke	168.	Mar.	30	Worke, Book	217.
"	31	"	169.	"	"	"	125.
Feb	6	Worke, Book	171.	May	2	Comm. on sale of B.	200.
"	28	" Cash, Book	43.	May	5	Balance	1250.782
"	"	Worke	176.				
Mar.	16	Worke, Book	182.				
"	31	Worke	188.				
Apr.	30	" Cash	199.				
May	10	" Cash	72.				
"	29	" Cash	209.				
"	31	Worke	212.				
June	5	" Cash, Book	58.				
"	9	" " " "	97.				
"	30	Worke	222.				
July	11	" Cash, Book	102.				
"	13	" Cash	226.				
"	31	Worke	235.				
Aug	8	" Cash	5.				
			1241.202				

General Expense

Aug 8	Badance	1239.82	Dec 30	Journal	65	2054.233
	" Nels Jackson & Nels 3.	11.07				
25	C. Meyer	9				
31	Drinks	1.44				
Apr 9	Cash	20				
30	Drinks	21				
Oct 19	N. H. Meyer	30				
31	Drinks	35				
Nov 16	Unsettled Co	42				
30	Drinks	49				
Dec 9	Cash	61				
30	Drinks	63				
		2054.233				
Jan 15	Unsettled Co	69				
26	C. Meyer	71				
Feb 19	Pro. H. J. Meyer	72				
21	Unsettled Co	59				
30	Unsettled Co	91				
	Drinks	93				
Apr 10	C. Meyer	111				
17	C. Meyer	114				
5	Unsettled Co	15				
15	C. Meyer	98				
20	C. Meyer	99				
30	Drinks	102				
May 22	State of N.J.	110				
29	Pro. H. J. Meyer	124				
31	Unsettled Co	113				
	Drinks	115				
June 30	"	116				
July 9	Pro. H. J. Meyer	17				
10	Unsettled Co	196				
31	Drinks	139				
Aug 4	"	150				
30	"	142				
Sept 15	Unsettled Co	165				
26	C. Meyer	80				
31	Drinks	172				
Nov 22	Unsettled Co	179				
30	Drinks	184				
Dec 19	Cash	110				
19	Unsettled Co	170				
30	C. Meyer	193				
31	Drinks	195				
		2265.493				
		2265.493				

Deutsche Sales Expense

May	31	State Office	115.	230.76	See 31	Journal	200.	173.650
June	30	"	179.	409.76				
July	31	"	138.	547.76				
Aug	31	"	129.	676.76				
Sept	30	"	161.	837.76				
Oct	31	"	177.	1014.76				
Nov	30	"	187.	1201.76				
Dec.	10	Self. Lth. Co.	158.	1359.76				
	73	State of L.Y.	192.	1551.76				
		Marriage Exp. etc.	193.	1744.76				
	31	State Office	196.	1940.76				
				1236.80				1236.80

Rnt. D. Low.

1910				1910			
Jan	19	By bal	79.	5000	Dec. 31 Journal	156.	200.00
Feb	5	"	124.	5000			
Mar	7	"	161.	15000			
Apr	7	"	104	15000			
				20000			200.00
1911				1911			
Jan.	17	By 80643	29.	5000	Dec. 31 Journal	65.	200.00
Feb.	3	" 81719	57.	15000			
July	15	" 82530	106.	15000			
Oct	5	" 80806	34.	15000			
				20000			200.00
1912				1912			
Nov	9	By 32496	76.	5000	Dec. 31 Journal	100.	200.00
Dec.	10	" 36028	111.	15000			
Jan	9	" 36800	17.	15000			
Oct	8	" 27954	69.	15000			
				20000			200.00

Reserve, Bad Debt

1910			1911				
Jan 1	19	2	Bad	99	1425 Jan. 1 Bal. 51	299	6000.00
May 5	5			114	Dec 25 James Carter	132	210.10
	6			115	Dec 10 Comm'l Bank Co	146	52.50
	21			123	" 12 Geo. Duffus	149	157.89
Apr 11	41		Bankton P. Co.	74	31 Journal	156	360.12
	24		Geo. Duffus Co.	77			
May 20	40		Bankton P. Co.	124			
	27		Geo. Duffus	125			
Nov 16			Walter Scott & Co.	149			
Dec 12			Comm'l Bank Co.	149			
	31		Balance	6429.52			
Jan 5	5		Clayton & Co.	161	395	Jan. 1 Balance	6429.52
Mar 3	3		Bankton P. Co.	179	9450	Dec 30 P. Co.	6000.00
	7		Geo. Duffus	180	4755		3378.14
	16		Wm. S. Duffus	181	27590		
	30		Geo. Duffus	185	21665		
	31		Bankton P. Co.	187	14475		
Apr 10	10		Wm. S. Duffus	191	11325		
June 10	10		Wm. S. Duffus	216	60755		
July 31	31		Wm. S. Duffus	9	120641		
Sept 9	9		Wm. S. Duffus	15	17849		
Dec 31	31		Balance	65	94552		
				9378.14			9378.14
Jan 5	5		Wm. S. Duffus	76	4513	Jan. 1 Balance	7645.77
July 9	9		Wm. S. Duffus	149	1000	Dec 10 Geo. Duffus	7645.77
	23		Wm. S. Duffus	151	1779	Dec 31 Journal	7645.77
Nov 11	11		Wm. S. Duffus	154	2664		1388.25
Dec 31	31		Balance	137	94552		7754.00

Rev. N. Thompson.

Mon	Red. #	1910	1910	1910
Jan. 1		347	1270	858.4
" 4	bal	34	60	44
" 11		20	40	40
" 14	Sunday	5	100	2.50
" 16		7	50	5.50
" 17	bal	100	110	100
" 18	Sunday	12	20	5.50
" 19	bal	16	30	5.50
" 20	Sunday	15	20	5.50
" 21	bal	15	20	5.50
" 22	Sunday	15	20	5.50
" 23	bal	15	20	5.50
" 24	Sunday	15	20	5.50
" 25	bal	15	20	5.50
" 26	Sunday	15	20	5.50
" 27	bal	15	20	5.50
" 28	Sunday	15	20	5.50
" 29	bal	15	20	5.50
" 30	Sunday	15	20	5.50
" 31	bal	15	20	5.50
" 32	Sunday	15	20	5.50
" 33	bal	15	20	5.50
" 34	Sunday	15	20	5.50
" 35	bal	15	20	5.50
" 36	Sunday	15	20	5.50
" 37	bal	15	20	5.50
" 38	Sunday	15	20	5.50
" 39	bal	15	20	5.50
" 40	Sunday	15	20	5.50
" 41	bal	15	20	5.50
" 42	Sunday	15	20	5.50
" 43	bal	15	20	5.50
" 44	Sunday	15	20	5.50
" 45	bal	15	20	5.50
" 46	Sunday	15	20	5.50
" 47	bal	15	20	5.50
" 48	Sunday	15	20	5.50
" 49	bal	15	20	5.50
" 50	Sunday	15	20	5.50
" 51	bal	15	20	5.50
" 52	Sunday	15	20	5.50
" 53	bal	15	20	5.50
" 54	Sunday	15	20	5.50
" 55	bal	15	20	5.50
" 56	Sunday	15	20	5.50
" 57	bal	15	20	5.50
" 58	Sunday	15	20	5.50
" 59	bal	15	20	5.50
" 60	Sunday	15	20	5.50
" 61	bal	15	20	5.50
" 62	Sunday	15	20	5.50
" 63	bal	15	20	5.50
" 64	Sunday	15	20	5.50
" 65	bal	15	20	5.50
" 66	Sunday	15	20	5.50
" 67	bal	15	20	5.50
" 68	Sunday	15	20	5.50
" 69	bal	15	20	5.50
" 70	Sunday	15	20	5.50
" 71	bal	15	20	5.50
" 72	Sunday	15	20	5.50
" 73	bal	15	20	5.50
" 74	Sunday	15	20	5.50
" 75	bal	15	20	5.50
" 76	Sunday	15	20	5.50
" 77	bal	15	20	5.50
" 78	Sunday	15	20	5.50
" 79	bal	15	20	5.50
" 80	Sunday	15	20	5.50
" 81	bal	15	20	5.50
" 82	Sunday	15	20	5.50
" 83	bal	15	20	5.50
" 84	Sunday	15	20	5.50
" 85	bal	15	20	5.50
" 86	Sunday	15	20	5.50
" 87	bal	15	20	5.50
" 88	Sunday	15	20	5.50
" 89	bal	15	20	5.50
" 90	Sunday	15	20	5.50
" 91	bal	15	20	5.50
" 92	Sunday	15	20	5.50
" 93	bal	15	20	5.50
" 94	Sunday	15	20	5.50
" 95	bal	15	20	5.50
" 96	Sunday	15	20	5.50
" 97	bal	15	20	5.50
" 98	Sunday	15	20	5.50
" 99	bal	15	20	5.50
" 100	Sunday	15	20	5.50

A. B. Hoover

1910

Jan 1 Lip #1

309

Hood

Dec 31

Ledges #3

205

25000

1912

Geo. I. Balmer, Agt.

1890		1891		1892		1893		1894		1895		1896		1897		1898		1899		1900		1901		1902		1903		1904		1905		1906		1907		1908		1909		1910		1911		1912		1913		1914		1915		1916		1917		1918		1919		1920		1921		1922		1923		1924		1925		1926		1927		1928		1929		1930		1931		1932		1933		1934		1935		1936		1937		1938		1939		1940		1941		1942		1943		1944		1945		1946		1947		1948		1949		1950		1951		1952		1953		1954		1955		1956		1957		1958		1959		1960		1961		1962		1963		1964		1965		1966		1967		1968		1969		1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980		1981		1982		1983		1984		1985		1986		1987		1988		1989		1990		1991		1992		1993		1994		1995		1996		1997		1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031		2032		2033		2034		2035		2036		2037		2038		2039		2040		2041		2042		2043		2044		2045		2046		2047		2048		2049		2050		2051		2052		2053		2054		2055		2056		2057		2058		2059		2060		2061		2062		2063		2064		2065		2066		2067		2068		2069		2070		2071		2072		2073		2074		2075		2076		2077		2078		2079		2080		2081		2082		2083		2084		2085		2086		2087		2088		2089		2090		2091		2092		2093		2094		2095		2096		2097		2098		2099		2100	
Jan	1	Feb	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																																																																																																																																																																																																																																																									

M. M. Hunter, Cpl., Quartermaster, Ga.

June 19	90 - 32670	932	91375	June 23	Bank	954	91375
22	" 32664	944	81375	28	St. Valpente	2202	70000
				July 13	" " "	22 1/2	21375
			182750				182750

4/31/10 Contingent fund 6294.62
4/4/10 " " 500.00

1976.70

C. Meyer, Mgr. of 2535.38

4/31/10 6294.62
4/4/10 " " 500.00

1976.70

1910			1910			1910		
Jan. 1	Red #1	314.	1574.51	Jan. 31	Saloff Reg.	39.	94135.54	
6	Red	95.	2675.19	Feb. 24	Saloff Reg.	57.	94135.54	
11	"	95.	2675.19	27	Saloff Reg.	41.	94135.54	
17	"	95.	2675.19	Mar. 31	"	43.	94135.54	
25	"	100.	2675.19	Apr. 13	Saloff Reg.	73.	94135.54	
25	"	100.	2675.19	26	Saloff Reg.	77.	94135.54	
July 4	"	105.	2675.19	30	Saloff Reg.	46.	94135.54	
9	"	106.	2675.19	May 9	Saloff Reg.	54.	94135.54	
10	"	109.	2675.19	20	Saloff Reg.	54.	94135.54	
24	"	110.	2675.19	24	Saloff Reg.	54.	94135.54	
24	"	114.	2675.19	31	Saloff Reg.	47.	94135.54	
26	"	114.	2675.19	June 6	Saloff Reg.	150.	94135.54	
May 5	"	114.	2675.19	21	Saloff Reg.	157.	94135.54	
10	"	116.	2675.19	7	Saloff Reg.	94.	94135.54	
16	"	117.	2675.19	30	Saloff Reg.	49.	94135.54	
16	"	120.	2675.19	July 31	"	50.	94135.54	
Apr. 21	Red & Grey	76.	2675.19	Dec. 17	Saloff Reg.	111.	94135.54	
23	Saloff Reg.	125.00	2675.19				94135.54	
2	Saloff Reg.	124.	2675.19				94135.54	
13	"	124.	2675.19				94135.54	
14	"	124.	2675.19				94135.54	
20	"	124.	2675.19				94135.54	
24	"	124.	2675.19				94135.54	
14	"	124.	2675.19				94135.54	
24	"	124.	2675.19				94135.54	
Aug 9	"	124.	2675.19				94135.54	
11	"	124.	2675.19				94135.54	
12	"	124.	2675.19				94135.54	
13	"	124.	2675.19				94135.54	
17	"	124.	2675.19				94135.54	
20	"	124.	2675.19				94135.54	
25	"	124.	2675.19				94135.54	
31	"	124.	2675.19				94135.54	
June 3	"	124.	2675.19				94135.54	
6	"	124.	2675.19				94135.54	
10	"	124.	2675.19				94135.54	
15	"	124.	2675.19				94135.54	
21	"	124.	2675.19				94135.54	
27	"	124.	2675.19				94135.54	
July 7	"	124.	2675.19				94135.54	
12	"	124.	2675.19				94135.54	
15	"	124.	2675.19				94135.54	
25	"	124.	2675.19				94135.54	
Aug 27	"	124.	2675.19				94135.54	
4	Red & Grey	124.	2675.19				94135.54	
1	Red	124.	2675.19				94135.54	

E. Meyer, May 18, 1899

1990	17	3	Balance	113	6755.47	Aug. 31	Balance	51	925.27
1991	18	1	Sal	120	1755.00	Sept. 30		53	876.87
	20			125	147.85	Oct. 5	Not Booked	128	4.00
	24			144	155.66	20		126	19.48
	1			155	155.66	31	Nov. Reg.	58	25.53
	11			179	243.44	Nov. 23	Not Booked	141	40.78
	12			184	147.44	11	Sal		29.25
	14			196	47.41	30	Sal Off. Reg.	57	69.33
	19				29.54	Dec. 31		58	111.60
	21			197	129.44	Jan. 11	Not Booked	165	40.18
	27			201	55.13	16	Sal	28	51.78
	30			204	15.44	31	Sal Off. Reg.	168	49.87
	1			205	15.44	31	Sal Off. Reg.	61	45.38
	12			201	67.52	21	Sal Off. Reg.	174	15.71
	14			209	7.00	9	Sal Off. Reg.	89	10.00
	44			210	27.54	8			6.62
	28			215	11.82	28	Sal Off. Reg.	62	57.54
	5			1	15.44	8	Sal Off. Reg.	181	80.00
	5			1	11.82	9	Sal Off. Reg.	46	60.00
	14			7	14.44	10			14.40
	21			7	24.44	17	Not Booked	183	15.44
	25			11	11.82	31	Sal Off. Reg.	65	57.54
	1			16	11.82	1	Sal Off. Reg.	185	15.44
	9			215	25.44				15.44
	10			20	5.00				
	14			21	49.44				
	17			22	1.00				
	21			17	1.25				
1991	29		0000.00	23	84.44				
Jan.	29		0050.22	26	10.22				
	17		0440.14	29	07.34				
	26		308.24	33	03.90				
	30		30.52		36.79				
	31		30.83		6.76				
	6		0000.45	36	00.10				
	9		0091.10	37	12.52				
	17		0091.10	39	46.06				
	24		009.93	40	25.44				
	22		0111.7	41	15.71				
	24		0112.8	42	88.62				
	28		011.76	44	00.12				
	3		0130.0	46	10.00				
	4		0130.6		12.12				
	10		0140.9	49	17.41				
	20		0150.1	50	31.52				
	25		0160.2		66.92				
					79.37				

79.37.61

Emmanuel Meyer, May 18, 1899

1991	1	Balance	124	140.37	Apr. 19	Not Booked	194	48.16
	1	0.01712	57	46.34	24		195	46.34
	7	3.75.25	57	44.88	30	Sal Off. Reg.	64	88.33
	10	3.81.9	67	63.97	May 27	Sal Off. Reg.	209	46.13
	16	3.00.11/2	66	10.88	31	Sal Off. Reg.	65	84.26
	5	3.20.30	70	31.67	June 10	Sal Off. Reg.	215	50.00
	12	0.10.24	70	36.80	28	Sal	220	40.24
	25	3.25.10	77	33.74	30	Sal Off. Reg.	66	24.52
	7	3.26.56/7	86	40.70	July 13	Sal Off. Reg.	226	25.16
	20	3.76.20/1	93	10.25	31	Sal Off. Reg.	67	70.87
	28	3.76.17	97	10.24	Aug 8	Sal Off. Reg.	5	98.30
	10	3.77.00	102	16.00	"	Sal Off. Reg.	"	14.41
	18	3.78.79	102	16.00	"	Sal Off. Reg.	"	65
	22	3.79.34	110	70.33	28	Sal Off. Reg.	9	55.26
	27	3.79.34	230	20.80	31	Sal Off. Reg.	"	27.50
	28	3.30.92	112	33.02	"	Sal Off. Reg.	68	33.02
	10	3.30.92	112	33.02	Sept 15	Sal Off. Reg.	16	24.00
	24	3.30.92	112	33.02	"	Sal Off. Reg.	"	24.00
	24	3.34.15	14	21.58	30	Sal Off. Reg.	69	21.58
	30	3.34.15	16	21.58	Oct 18	Sal Off. Reg.	29	12.07
	7	3.35.71	20	25.74	"	Sal Off. Reg.	"	10.00
	11	3.35.71	22	18.40	24	Sal Off. Reg.	31	63.11
	22	3.35.71	29	15.00	31	Sal Off. Reg.	33	17.44
	28	3.35.71	31	15.00	"	Sal Off. Reg.	70	51.23
	4	3.35.71	33	39.82	Nov 10	Sal Off. Reg.	40	22.50
	11	3.35.71	37	26.76	"	Sal Off. Reg.	"	22.10
	18	3.35.71	40	14.59	16	Sal Off. Reg.	41	20.00
	24	3.35.71	42	10.00	27	Sal Off. Reg.	71	57.54
	27	3.35.71	44	63.11	30	Sal Off. Reg.	71	57.54
	8	3.35.71	49	54.24	Dec 7	Sal Off. Reg.	51	58.00
	9	3.35.71	49	33.64	13	Sal Off. Reg.	"	58.00
	14	3.35.71	50	41.23	30	Sal Off. Reg.	"	58.00
	17	3.35.71	52	20.00	"	Sal Off. Reg.	"	58.00
	28	3.35.71	56	41.23	"	Sal Off. Reg.	"	58.00
	18	3.35.71	63	38.00	"	Sal Off. Reg.	"	58.00
	14	3.35.71	63	38.00	"	Sal Off. Reg.	"	58.00
	21	3.35.71	66	52.67	"	Sal Off. Reg.	"	58.00
	29	3.35.71	71	30.88	"	Sal Off. Reg.	"	58.00
	1	Balance	75	23.87	Jan 9	Sal Off. Reg.	47	62.47
	9	0.00.00	75	60.00	26	Sal Off. Reg.	71	159.00
	19	3.35.71	77	33.30	"	Sal Off. Reg.	"	152.11
	22	3.35.71	70	1.55	8	Sal Off. Reg.	67	24.00
	26	3.35.71	81	50.30	31	Sal Off. Reg.	77	71.75
	29	3.35.71	84	30.88	"	Sal Off. Reg.	"	71.75
				10.00	"	Sal Off. Reg.	"	10.00

Emanuel Meyer, M.D. of Palet. ¹⁹¹² continuing fund

1	Balance	365	323.91	Feb 5	Lyons & Co.	76	110.79
6	"	87	369.94	"	"	77	10.55
14	"	112	369.94	"	"	78	16.50
16	"	91	44.54	Feb 29	Lyons & Co.	74	722.11
37	"	72	33.75	"	"	74	80.50
Mar. 4	"	96	18.04	"	"	88	1.34
10	"	101	16.59	"	"	75	163.14
20	"	115	13.93	"	"	78	16.32
Apr. 10	"	111	16.38	"	"	99	100
24	"	116	354.78	"	"	101	2.50
May 7	"	118	44.83	"	"	76	77.87
16	"	119	47.22	"	"	106	13.75
"	"	121	116.28	"	"	109	149.4
"	"	122	37.20	"	"	109	371.61
"	"	176	51.46	"	"	110	156.25
21	"	120	14.64	"	"	113	2.25
38	"	134	33.76	"	"	77	133.18
5	"	5	215.04	"	"	120	138.54
"	"	5	22.18	"	"	10	207.75
18	"	9	77.94	"	"	122	21.24
20	"	10	20.72	"	"	123	48.76
35	"	11	154.72	"	"	123	10.63
"	"	12	10.31	"	"	123	2.68
75	"	175	14.69	"	"	124	19.10
July 6	"	15	40.64	"	"	78	26.49
16	"	10	49.86	"	"	131	28.00
19	"	24	18.69	"	"	133	54.46
23	"	76	27.28	"	"	79	18.59
Aug. 1	"	32	150.42	"	"	141	87.20
"	"	32	31.38	"	"	143	78.64
6	"	38	136.83	"	"	144	26.45
16	"	41	65.24	"	"	146	10.12
20	"	43	141.54	"	"	147	19.75
23	"	45	10.13	"	"	148	40.55
29	"	47	30.33	"	"	149	119.32
37	"	48	25.47	"	"	150	164.85
Sept. 4	"	50	65.10	"	"	151	77.47
"	"	55	35.42	"	"	154	78.70
12	"	57	31.36	"	"	155	74.96
24	"	61	31.78	"	"	157	110.60
"	"	62	29.57	"	"	158	12.42
28	"	64	74.67	"	"	159	37.85
"	"	66	156.20	"	"	160	110.55
2	"	69	190.68	"	"	161	30.00
15	"	74	110.42	"	"	162	37.85
19	"	79	230.98	"	"	163	31.47
24	"	81	140.44	"	"	164	74.74
"	"	82	42.26	"	"	165	10.63
			78.14	"	"	166	78.14

Emanuel Meyer, Mgr. of Sales.

[illegible]

North American Port. Co.

1910

Jan.

Led. #1

3.15

49,1989

Jan.

4

Cash

252

17,079

But

C.R.

2192

1678.29

12

371

67,3489

709069

1

801

71,800

709068

Edison Manufacturing Co

1910	24	3	Acetylene	4.50	5000000
1911	51		Acetylene	10.00	1000000
1912	11		Acetylene	11.00	5000000
1913	5		Acetylene	11.00	9914
					1019914

1910	21	2	Acetylene	4.50	6000000
1911	51		Acetylene	10.00	1000000
1912	11		Acetylene	11.00	5000000
1913	5		Acetylene	11.00	9914
					1019914

Expenses, Repairs, etc.

Sept. 24 Journal
 10/1/30 "
 11/1/30 "

1930
 60 3369529 Nov. 01 Journal 166 3369529
 63 1077772 Dec. 30 Journal 66 1077772
 92 3294180 Dec. 31 Journal 200 3294180

Purchase of General.

Apr.	11	0010	440.00	24	74	19,861.00	Apr. 30	End. Br. 1898	216	13,876.60	
	12	1689	"	"	"	98,040.00	May 31	"	622	237	34,623.4
	13	1750	"	"	70	10,500.00					
	"	2287	"	"	"	10,722.20					
	15	1547	"	"	74	9,282.20					
	16	692	"	"	"	41,620.00					
	21	795	"	"	75	47,700.00					
	"	1112	"	"	76	65,720.00					
	26	1489	"	"	77	87,040.00					
	26	1416	"	"	"	8,496.00					
	27	1717	"	"	"	10,002.00					
	28	782	"	"	"	46,920.00					
	30	1488	"	"	80	54,120.00					
May	6	1827	"	"	81	82,848.00					
Dec.	31	Journal				100	2,000.00				
						13,859.44					13,859.44
June	21	Journal	1500	219	244,500.00	June 15	Journal	1500	216	244,500.00	
	30	"	1298	222	80,891.00	"	30	End. Br. 1899	294	81,404.00	
July	31	"	1872		35,154.00	"	31	"	1872	35,154.00	
Aug	31	"	823	11	35,154.00	Aug 9	Journal	2642	4	10,760.00	
Dec	11	Journal	52		3,443.00	"	11	"	1564	3,443.00	
					34,717.00	Dec. 30	P.L.			3,443.00	
June	7	450	118		27,900.00	June 7	450	118		27,900.00	
	14	132	121		8,560.00	14	132	121		8,560.00	
Sept	11	600	154		120,000.00	Sept 30	1992	300		13,940.00	
	12	340	156		738,000.00	Dec. 31		300		153,520.00	
	27	542	159		46,070.00						
	"	510	160		478,600.00						
		2574			15,121.4		2574			19,181.4	

W.N. Sheldermine. Company (A)

1911				1911 (continued)						
Apr.	1	Beier Pay	258	61,050.00	Apr.	27	Amundson's	184	8,000.00	
Oct	14	"	"	568	31,281.15	Oct	13	Sal.	10,500.00	
	2	N 02480	"	98	31,050.00		14	Sheldermine	1908	3,198.15
							2	Amundson's	208	8,000.00
							"	Sal.	8	10,500.00
										740,915
Apr.	31	N 04129	98	20,315.79	Oct	20	Sheldermine	338	20,315.79	
Apr.	1	" 33491	178	30,000.00	Apr.	1	Amundson's	95	30,000.00	
Oct	1	" 33494	224	30,000.00	Oct	9	Sal.	166	30,000.00	
Dec	31	Ledger #3	285	13,859.44	Dec	31	Sal.	176	13,859.44	
				277,147.4					277,147.4	

Thomas M. Thompson

[illegible]

Thomas M. Thompson (Carroll St.)

1917			1918			1919		
Apr.	16 N. 26023	174	660.00	Apr. 4	Account of Bond #12 954	660000		
Oct.	1 " 27945	27	660.00	Oct. 9	" " 164	660000		
Dec.	31 Ledger #3	287	34182	Dec. 31	" " 196	34182		
			166182			166182		

Misc. Disbursements

1910			1910		
Jan 31	by Cash	147	600.80	Dec. 31 Journal	152. 4898.28
Jan 31	"	100	176.65		
Feb 31	"	174	359.43		
Mar 31	by Cash	114	600		
Apr 31	by Cash	110	872.22		
May 31	"	201	328.21		
Jun 31	"	215	266.45		
Jul 31	"	21	266.57		
Aug 31	Journal	151	681		
Sept 31	" C.R. 24		288.86		
			4898.28		
Nov 31	Cash Book	34	202.30	Nov 31 Balance	5117.43
Dec 31	Journal	174	108		
	"	175	500		
Jan 31	Cash Book	42	842.22		
Feb 31	Journal	179	25.00		
Mar 31	"	180	680		
Apr 31	"	181	1600		
May 31	"	182	1050		
Jun 31	"	184	202.10		
Jul 31	"	185	150		
Aug 31	"	186	160		
Sept 31	Cash Book	66	488.88		
Oct 31	Journal	175	150		
Nov 31	"	"	450		
Dec 31	"	"	295		
Jan 31	Cash Book	68	842.22		
Feb 31	Journal	200	500		
Mar 31	"	"	300		
Apr 31	"	"	490		
May 31	"	"	1400		
Jun 31	"	"	170		
Jul 31	"	"	1500		
Aug 31	"	"	156		
Sept 31	"	"	170		
Oct 31	Cash Book	80	578.88		
Nov 31	Journal	215	1500		
Dec 31	Cash Book	217	640		
Jan 31	Journal	218	2000		
Feb 31	Cash Book	216	175		
Mar 31	"	217	01		
Apr 31	"	"	832		
May 31	Cash Book	24	4898.28		
Jun 31	Journal	217	151.01		
Jul 31	"	"	21030		
Aug 31	"	"	2000		
Sept 31	Cash Book	113	825.19		
Oct 31	Journal	251	2000		
			5117.43		

Misc. Disbursements

1911			1911		
Aug 1	Balance		5117.43	Nov. 30 Journal	68 5274.90
18	Journal	200	500		
31	Cash	19	844.44		
Sept 22	Cash	"	150		
28	Journal	17	1500		
Oct 6	Cash	32	2786.2		
15	Journal	25	1500		
18	Cash	27	92		
19	Journal	29	1340		
24	"	30	500		
26	"	31	510		
31	"	32	150		
Nov 31	Cash	45	202.30		
16	Journal	42	150		
18	"	43	150		
21	"	44	150		
24	Cash	57	491.2		
Dec 12	Journal	53	1000		
21	"	57	1000		
30	Cash	72	146.25		
			5274.90		
Jan 31	Cash	85	1894.10	Jan 31 Balance	297 2952.56
Feb 29	"	95	1272.5		
Mar 31	Journal	86	150		
23	"	89	1500		
Apr 16	Cash	147	302.43		
30	Journal	98	150		
May 30	Cash	120	488.88		
17	Journal	108	1150		
29	"	111	150		
30	Cash	148	141		
31	Journal	135	5520.1		
June 7	"	112	1647.0		
13	"	118	425		
17	"	119	1500		
19	"	120	590		
24	Cash	173	425		
July 9	Journal	13	469.26		
12	"	179	1400		
17	"	"	600		
21	Cash	21	740		
22	Journal	397	131		
23	"	137	2000		
24	Journal	134	3736		
29	"	124	150		
31	Cash	21	202.30		
			5274.90		

Notes Rec. Discontinued

1910				1911				1912			
Dec.	27	Brewer Rec.	1524	612997	Dec.	27	Bank Rec.	226	612997	7	612997
"	"	"	"	"	"	"	"	"	"	"	"
Jan.	31	"	1679	612997	Jan.	31	"	358	612997	71	612997
Mar.	21	"	1835	612997	Feb.	1	"	358	612997	71	612997
Apr.	27	"	1975	612997	"	2	"	358	612997	71	612997
June	9	"	2146	612997	Mar.	20	"	358	612997	71	612997
July	13	"	2273	612997	"	24	"	358	612997	71	612997
Aug.	14	"	2324	612997	"	24	"	358	612997	71	612997
Sept.	7	"	5104	612997	Apr.	18	"	358	612997	71	612997
"	15	"	5142	612997	"	"	"	358	612997	71	612997
Oct.	20	"	5268	612997	June	12	"	358	612997	71	612997
Nov.	6	"	5259	612997	"	"	"	358	612997	71	612997
"	29	"	5372	612997	"	"	"	358	612997	71	612997
Dec.	1	"	5379	612997	July	18	"	358	612997	71	612997
"	18	"	5436	612997	"	"	"	358	612997	71	612997
Jan.	17	"	5508	612997	Aug.	15	"	358	612997	71	612997
Feb.	7	"	5538	612997	"	16	"	358	612997	71	612997
"	10	"	5576	612997	"	18	"	358	612997	71	612997
"	28	"	5642	612997	Sept.	7	"	358	612997	71	612997
Mar.	20	"	5652	612997	"	18	"	358	612997	71	612997
Apr.	16	"	5747	612997	"	"	"	358	612997	71	612997
May	25	"	5824	612997	Oct.	20	"	358	612997	71	612997
June	7	"	5857	612997	"	25	"	358	612997	71	612997
"	24	"	5886	612997	Nov.	6	"	358	612997	71	612997
July	23	"	5967	612997	"	"	"	358	612997	71	612997
"	"	"	5968	612997	Dec.	1	"	358	612997	71	612997
					"	2	"	358	612997	71	612997
					"	5	"	358	612997	71	612997
					"	10	"	358	612997	71	612997
					"	11	"	358	612997	71	612997
					"	12	"	358	612997	71	612997
					"	13	"	358	612997	71	612997
					"	14	"	358	612997	71	612997
					"	15	"	358	612997	71	612997
					"	16	"	358	612997	71	612997
					"	17	"	358	612997	71	612997
					"	18	"	358	612997	71	612997
					"	19	"	358	612997	71	612997
					"	20	"	358	612997	71	612997
					"	21	"	358	612997	71	612997
					"	22	"	358	612997	71	612997
					"	23	"	358	612997	71	612997
					"	24	"	358	612997	71	612997
					"	25	"	358	612997	71	612997
					"	26	"	358	612997	71	612997
					"	27	"	358	612997	71	612997
					"	28	"	358	612997	71	612997
					"	29	"	358	612997	71	612997
					"	30	"	358	612997	71	612997
					"	31	"	358	612997	71	612997
					"	32	"	358	612997	71	612997
					"	33	"	358	612997	71	612997
					"	34	"	358	612997	71	612997
					"	35	"	358	612997	71	612997
					"	36	"	358	612997	71	612997
					"	37	"	358	612997	71	612997
					"	38	"	358	612997	71	612997
					"	39	"	358	612997	71	612997
					"	40	"	358	612997	71	612997
					"	41	"	358	612997	71	612997
					"	42	"	358	612997	71	612997
					"	43	"	358	612997	71	612997
					"	44	"	358	612997	71	612997
					"	45	"	358	612997	71	612997
					"	46	"	358	612997	71	612997
					"	47	"	358	612997	71	612997
					"	48	"	358	612997	71	612997
					"	49	"	358	612997	71	612997
					"	50	"	358	612997	71	612997
					"	51	"	358	612997	71	612997
					"	52	"	358	612997	71	612997
					"	53	"	358	612997	71	612997
					"	54	"	358	612997	71	612997
					"	55	"	358	612997	71	612997
					"	56	"	358	612997	71	612997
					"	57	"	358	612997	71	612997
					"	58	"	358	612997	71	612997
					"	59	"	358	612997	71	612997
					"	60	"	358	612997	71	612997
					"	61	"	358	612997	71	612997
					"	62	"	358	612997	71	612997
					"	63	"	358	612997	71	612997
					"	64	"	358	612997	71	612997
					"	65	"	358	612997	71	612997
					"	66	"	358	612997	71	612997
					"	67	"	358	612997	71	612997
					"	68	"	358	612997	71	612997
					"	69	"	358	612997	71	612997
					"	70	"	358	612997	71	612997
					"	71	"	358	612997	71	612997
					"	72	"	358	612997	71	612997
					"	73	"	358	612997	71	612997
					"	74	"	358	612997	71	612997
					"	75	"	358	612997	71	612997
					"	76	"	358	612997	71	612997
					"	77	"	358	612997	71	612997
					"	78	"	358	612997	71	612997
					"	79	"	358	612997	71	612997
					"	80	"	358	612997	71	612997
					"	81	"	358	612997	71	612997
					"	82	"	358	612997	71	612997
					"	83	"	358	612997	71	612997
					"	84	"	358	612997	71	612997
					"	85	"	358	612997	71	612997
					"	86	"	358	612997	71	612997
					"	87	"	358	612997	71	612997
					"	88	"	358	612997	71	612997
					"	89	"	358	612997	71	612997
					"	90	"	358	612997	71	612997
					"	91	"	358	612997	71	612997
					"	92	"	358	612997	71	612997
					"	93	"	358	612997	71	612997
					"	94	"	358	612997	71	612997
					"	95	"	358	612997	71	612997
					"	96	"	358	612997	71	612997
					"	97	"	358	612997	71	612997
					"	98	"	358	612997	71	612997
					"	99	"	358	612997	71	612997
					"	100	"	358	612997	71	612997

Notes Received & Discounted

1911		1912		1913		1914		1915	
Aug.	21	Receivable	405	148	21321.27	Aug.	22	612	454
Sept.	7	1121	158	20148.47		23	"	"	464
Oct.	9	4374	168	511903		"	"	"	482
18	4173	165	647362	Sept.	76	"	"	"	638
19	4186	166	263488	"	"	"	"	"	12
Nov.	22	4266	179	27255140	Oct.	11	"	"	718
					18	"	"	"	788
					19	"	"	"	798
					Nov.	19	"	"	764
					22	"	"	"	794
					"	"	"	"	1046
					Dec.	6	"	"	1046
									8824954

Warehouse Collateral Notes.

[illegible]

Dexter Bags.

1912			1913		
Sept 17	1360 @ 10.156	13600	Sept 30	3400 @ 10.300	34000
77	<u>2040</u>	<u>20400</u>		<u>3400</u>	<u>34000</u>
	3400	34000			

Rent & Storage.

1911									
Jan 31	Journal	168.	6.11.16	Jan 31	W.C. White Co.	168.	7.55.6		
Mar 31	"	187.	58.88	Feb 28	" " "	168.66	8.12.9		
Apr 30	"	178.	14.636	May 31	" " "	187.49	16.8.2		
June 30	"	222.	25.120	Dec 30	Journal	158.24	215.		
July 31	"	233.	25.125				1.17.1		
Aug 31	"	11.	25.125				57.53.7		
Sept 30	"	20.	31.125						
Oct 31	"	55.	31.125						
Nov 30	"	48.	16.538						
Dec 30	"	62.	16.538						
			64.278						
1912							6.90.26		
Jan 31	Journal	73.	12.440	Feb 29	M. B. White Co.	181.	7.14.4		
Feb 29	"	52.	14.474	Mar 31	" " "	178.	13.46.4		
Mar 30	"	92.	54.871	"	Journal	300.	8.46.5		
Apr 30	"	102.	54.871						
May 31	"	112.	54.871						
June 29	"	124.	54.871						
July 12	"	131.	54.871						
31	"	138.	54.871						
"	"	"	54.871						
Sept 12	"	145.	54.871						
Oct 29	"	170.	54.871						
			57.53.1				57.45.1		

Norton & Kemerivay Storage

1891				1892				1893			
Mar	31	2040	@ 655 187	133620	Apr	30	1700	@ 655 198	111350		
Apr	30	1820	" 646 198	105892	May	31	540	" " 212	22270		
May	31	1600	" 626 211	1000100	"	"	1020	" 646	65892		
June	30	1540	" 618 225	972458	"	"	800	" 626	50084		
July	31	1310	" 614 231	942634	June	30	870	" " 223	50880		
Aug	31	2210	" 59 12	910878	"	"	650	" 608	31344		
Sept	30	1020	" 589 20	880075	Aug	31	850	" " 12	55504		
Oct	31	1340	" 56 34	846160	Sept	30	1310	" 614	266454		
Nov	30	550	" 568 48	812250	"	"	2210	" 59	135394		
Dec	31	1190	" " 62	77522	Oct	31	1020	" 589 35	60078		
Jan	31	170	" " 73	74474	"	"	340	" 56	190440		
Feb	29	510	" " 82	70263	Nov	30	1020	" " 48	57120		
Mar	31	1340	" 574 93	65040	Dec	31	510	" 568 62	29248		
Apr	30	1530	" 578 102	58434	Jan	31	1320	" " 73	72748		
May	31	1180	" 583 115	51377	Feb	29	850	" 82	43280		
June	31	430	" 585 139	47763	Mar	30	1120	" 574 103	63504		
July	31	510	" 689 149	39033	Apr	31	1120	" 578	77558		
Aug	30	170	" 685 161	34466	May	31	1180	" 583 116	98276		
Sept	31	370	" 695 172	29203	June	30	170	" 589 119	33774		
Oct	31	1320	" 616 184	24044	July	31	650	" 580 120	39780		
Nov	30				Aug	30	510	" 589 161	30037		
Dec	31				Sept	31	1180	" 581	38996		
Jan	31				Nov	30	170	" 595 183	16615		
Feb	29				Dec	31	200	" 595 179	11900		
Mar	31						150	" 601	2894		
Apr	30						68000		14270.73		
May	31						23800				

72. 73. 83. Storage

May	51	1000	655	187	65500	May	31	1000	655	212	65500
May	30	340	646	198	21264	May	30	340	646		21264
May	31	1050	626	212	65168	May	30	340	626		21264
June	22	340	646	219	21284	June	30	340	646	225	21264
"	30	340	668	225	21108	"	30	340	626		21264
July	31	340	644	231	20876	July	31	1502	"	232	7421
Sept	31	574	57	12	20070	"	31	193	668		21173
Oct	30	650	589	20	20052	Aug	31	340	"	12	19216
Nov	31	650	56	34	20580	"	30	1538	641		20448
Dec	30	1530	568	48	24700	Sept	30	1538	"	20	21323
Jan	30	645	"	62	24636	"	31	510	59		20090
Feb	31	170	"	73	24636	"	30	1554	589		21766
Mar	29	650	"	82	24642	Oct	31	390	"	35	22671
Apr	30	850	574	93	24790	Nov	30	1544	"	48	21175
May	30	850	578	102	24304	"	30	650	56		23050
June	31	1330	589	115	24190	"	30	664	568		23115
July	30	1020	578	126	23856	Dec	30	1164	"	62	24525
Aug	31	1180	585	139	22440	Jan	31	2274	"	73	24248
Sept	31	888	589	149	22878	Feb	29	6124	"	82	23719
Oct	30	1640	588	161	24312	Mar	30	3444	"	92	19553
Nov	30	880	595	172	24260	"	30	2444	574		24434
Dec	30	2387	588	187	24038	Apr	30	6004	"	103	24354
Jan	31	340	666	"	24004	"	30	2334	575		24358
Feb	31	1440	629	197	25540	May	31	2534	"	115	23144
						June	30	1164	"	583	21192
						"	30	3112	"	575	21836
						July	31	2734	"	578	21840
						Aug	31	3114	"	100	18077
						"	30	176	588		21948
						Sept	30	4444	598		26166
						"	30	5534	"	161	27616
						Oct	31	2114	581		21874
						"	31	1534	"	173	20581
						Nov	30	1444	590		26507
						"	30	1444	"	113	21850
						Dec	31	2354	661		28914
						"	31	2354	"	581	18035
						"	31	1814	661		21594
						"	31	1814	671		21839
						31	15914	223			22722

New England Storage Expenses

1901	Mo.	Day	Particulars	1902	Mo.	Day	Particulars
May	1		Antonia & Co. 200.-	17576	May	31	Balance
	2		W. C. Smith & Co. 205.-	25320	June	31	"
	10		C. J. Wood 205.-	24932	July	31	"
	25		St. Louis 205.-	14040	Aug	31	"
	29		St. Louis 209.-	24074	Sept	30	"
			210.-	1904	Oct	31	"
			St. Louis 210.-	6998	Nov	10	Balance
			St. Louis 210.-	123717			
			St. Louis 210.-	48895			
			St. Louis 210.-	11952			
June	10		St. Louis 215.-	1170			
			C. J. Wood 215.-	500			
	19		St. Louis 217.-	7738			
			St. Louis 218.-	900			
	22		St. Louis 219.-	17928			
	28		St. Louis 220.-	400			
	30		St. Louis 221.-	4745			
July	6		St. Louis 225.-	78742			
	13		"	47808			
	17		St. Louis 228.-	5775			
	24		St. Louis 229.-	3230			
			St. Louis 230.-	14060			
	26		St. Louis 250.-	900			
			St. Louis 250.-	10			
Aug	8		St. Louis 250.-	500			
	16		St. Louis 250.-	17928			
	18		St. Louis 250.-	438			
			St. Louis 250.-	11952			
	25		St. Louis 250.-	2925			
	29		St. Louis 250.-	1650			
Sept	9		St. Louis 250.-	750			
	22		St. Louis 250.-	1350			
	28		St. Louis 250.-	84420			
Oct	6		St. Louis 250.-	1292			
	7		St. Louis 250.-	5125			
			St. Louis 250.-	2782			
	15		St. Louis 250.-	2584			
			St. Louis 250.-	1425			
	18		St. Louis 250.-	137449			
	20		St. Louis 250.-	375			
	24		St. Louis 250.-	5776			
	26		St. Louis 250.-	500			
	31		St. Louis 250.-	41832			
Nov	3		St. Louis 250.-	11952			
	10		St. Louis 250.-	1800			
			St. Louis 250.-	1391			
			St. Louis 250.-	847528			

New England Stock Expense

1901	Mo.	Day	Particulars	1902	Mo.	Day	Particulars
Nov	10		Balance	208567	Nov	30	Balance
	15		Smith & Co. 26.41	9520	Dec	30	"
	16		St. Louis 3345.42	625			
			St. Louis 3349.11	2449			
	22		St. Louis 3355.45	53784			
	23		St. Louis 3359.4	3975			
			St. Louis 3363.373	11952			
	Dec	9	St. Louis 3366.52	351292			
			St. Louis 3390.54	1000			
			St. Louis 3425.54	15390			
			St. Louis 3442.56	77658			
			St. Louis 3447.57	9219			
			St. Louis 3447.57	7104			
			St. Louis 3447.57	467569			

Blanc Stainless Cement

1911		1911		1911		1911	
Aug 16.	50 5 ✓	1500	Aug 31	1412	300	12235.	
31. Sticks	11	3040	Sep 30	"	"	2612	"
Sep 9 "	40 15	42000	Oct 31	"	"	5	"
Nov 24 "	25 46	47300	Nov 29	"	"	1412	300
Dec 30 Sticks	49	47300	Dec 30	"	"	86	"
Jan 6. Sticks	35 86	47300	Jan 30	"	"	8	"
Jan 30 Sticks	150 93	47300	Feb 28	"	"	4	"
Dec. 31. P.L.	300	5149	Mar 30	"	"	4	"
		5149	Apr 30	"	"	1412	"
			Chas			✓	
	150	56269		150	56269		

Blanc Bags

1911		1911		1911		1911	
Aug 16	200 5 ✓	1000	Aug 31	129	299	445	
Sep 9	160 15	800	Sep 30	106	"	530	
Nov 24	100 46	500	Oct 31	20	"	1200	
Jan 6	140 56	100	Nov 29	58	300	200	
			Dec 30	34	"	1700	
			Jan 30	32	"	1700	
			Feb 29	16	"	1400	
			Mar 30	14	"	1400	
			Apr 30	155	"	2000	
			Dec. 31	Journal		200	
				Chas	4		
	600	3000		600	3000		

Sub. & Discount Receipts.

1911		1911	
Oct 20	20	20	20
Nov 31	31	31	31
106.10553672		106.10553672	
Sub. 29	29	29	29
Nov 29	29	29	29
Dec 30	30	30	30
Jan 31	31	31	31
Feb 29	29	29	29
Mar 29	29	29	29
Apr 30	30	30	30
May 31	31	31	31
June 29	29	29	29
July 31	31	31	31
Aug 31	31	31	31
Sept 30	30	30	30
Oct 30	30	30	30
Nov 30	30	30	30
Dec 31	31	31	31
10553672		10553672	

Thos. A. Edison, N.Y. & Co. (N.Y. & Co.)

1911		1911	
Oct 31	31	31	31
N. 34133		N. 34133	
Nov 31	31	31	31
Dec 31	31	31	31
Jan 31	31	31	31
Feb 29	29	29	29
Mar 29	29	29	29
Apr 30	30	30	30
May 31	31	31	31
June 29	29	29	29
July 31	31	31	31
Aug 31	31	31	31
Sept 30	30	30	30
Oct 30	30	30	30
Nov 30	30	30	30
Dec 31	31	31	31
10553672		10553672	

Thos. G. Edison (Cash - W. S. Co.)

Oct. 21. N. 34122	64	121	250	25	Oct. 28	2	32	2125	25
Apr. 4. " 36022	14	227	700	00	Sept. 1	1	22	77000	00
Oct. 1. " 37942	27	227	7000	00	Oct. 9	164	227	7000	00
		166	790	25			166	79025	

Thos. G. Edison Int. Loan

Jan. 27	27	0	85322	844	500000	Jan. 23 Cash	279	250000
Feb. 2	2	"	35329	864	500000	Mar. 8 Int. Paid	864	8666
8	8	"	35348	874	500000	Apr. 24 Cash	319	300000
16	16	"	35556	924	500000	May 15 Int. Paid	1073	8332
24	24	"	35561	944	500000	28 " "	110	8617
Mar. 6	6	"	35673	952	500000	June 17 " "	120	85461
May 11	11	"	36317	106	500000	July 73 " "	133	85461
15	15	"	"	1273	8332			
24	24	"	36437	134	8666			
18	18	"	36630	74	85580			
July 27	27	"	37115	76	500000			
3	3	N	"	72	500000			
"	"	"	"	"	500000			
"	"	"	"	"	500000			
					5568522			5568522

Thos. G. Edison's Advances.

Month	Day	Particulars	Debit	Credit	Balance
May	31	176 500.00			176 500.00
June	31	176 500.00			176 500.00
July	16				
Aug	16				
Sept	16				
Oct	16				
Nov	16				
Dec	16				
Jan	16				
Feb	16				
Mar	16				
Apr	16				
May	16				
June	16				
July	16				
Aug	16				
Sept	16				
Oct	16				
Nov	16				
Dec	16				
Jan	16				
Feb	16				
Mar	16				
Apr	16				
May	16				
June	16				
July	16				
Aug	16				
Sept	16				
Oct	16				
Nov	16				
Dec	16				
Jan	16				
Feb	16				
Mar	16				
Apr	16				
May	16				
June	16				
July	16				
Aug	16				
Sept	16				
Oct	16				
Nov	16				
Dec	16				
Jan	16				
Feb	16				
Mar	16				
Apr	16				
May	16				
June	16				
July	16				
Aug	16				
Sept	16				
Oct	16				
Nov	16				
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Mortgage Payable

Ed M. Smith Property
Purchase Price \$1500

<u>1917</u>					<u>1918</u>			Eva M Smith Property Purchase Price \$600.00
Dec.	31	Ledger #3	261	2500.00	Apr H Cash	109	2500.00	

EDISON-SAUNDERS COMPRESSED AIR COMPANY RECORDS

The Edison-Saunders Compressed Air Co. was incorporated in the State of New Jersey on April 18, 1899, in order to acquire, control, and develop Edison's patents for reheating compressed air. It also assumed the rights to a patent relating to the efficiency of motor fluids, which had been granted jointly to William L. Saunders and the Ingersoll-Sergeant Drill Co. in 1892. At the time of incorporation, Richard N. Dyer served as president; William Pelzer, as vice president; and Archibald G. Reese, as secretary and treasurer. At a meeting of stockholders, held at the West Orange laboratory on April 24, 1899, Edison was elected president; William L. Saunders, vice president; and Walter S. Mallory, secretary and treasurer.

The records consist of the minutes from one meeting of stockholders and a book of stock certificates and receipts. Only the minutes have been selected. A finding aid for the archival record group is available at the Edison National Historic Site. Related material can be found in the "Edison-Saunders Compressed Air Company" folders for 1899 and 1901 in the Document File Series, as well as in the letterbooks of Walter S. Mallory in the New Jersey and Pennsylvania Concentrating Works Records (*Thomas A. Edison Papers: A Selective Microfilm Edition, Part III*).

Minutes (1899)

This volume consists of minutes from the first meeting of the company's stockholders, held at the West Orange laboratory on April 24, 1899. The document concerns the election of officers, as well as the adoption of a certificate of organization and bylaws. Included are copies of letters from Edison, William L. Saunders, and the Ingersoll-Sergeant Drill Co. The correspondence pertains to the assignment of Edison's patent for reheating compressed air and Saunders's patented method for improving the efficiency of motor fluids.

Stock Book (1899) [not selected]

This volume covers the period 1899. It contains stock certificates and receipts for shares issued to Edison, Richard N. Dyer, Walter S. Mallory, William Pelzer, and William L. Saunders.

**Edison-Saunders Compressed Air Company Records
Minutes (1899)**

This volume consists of minutes from the first meeting of the company's stockholders, held at the West Orange laboratory on April 24, 1899. The document concerns the election of officers, as well as the adoption of a certificate of organization and bylaws. Included are copies of letters from Edison, William L. Saunders, and the Ingersoll-Sergeant Drill Co. The correspondence pertains to the assignment of Edison's patent for reheating compressed air and Saunders's patented method for improving the efficiency of motor fluids. The front cover is labeled "Minute Book -of- Edison-Saunders Compressed Air Company." The book contains 153 numbered pages; it has been used to page 16.

First meeting of the Stockholders of the Edison-
Swinden Consolidated Inc. Company, held, the
24th day of April, 1899 at 3:30 o'clock in the after-
noon, at the Edison Laboratory, West Orange, N.J.

Present

Richard A. Dyer

William Telger

Archibald G. Reese

The meeting was called to order. On motion,
Richard A. Dyer was elected Chairman and
William Telger, Secretary.

The Certificate of Organization and Minutes of
Notice of first meeting were read, and, on motion,
were ordered to be spread upon the minutes.

The Certificate of Organization is as follows:-

This is to Certify, That Mr. Richard A. Dyer,
William Telger, and Archibald G. Reese, do hereby
associate themselves into a Corporation, by virtue
of the provisions of an act of the Legislature of New
Jersey, entitled "An Act Concerning Corporations"
(revision of 1896) approved April 21st, 1896, and the
several supplements thereto for the purposes herein after
mentioned, and to that end we do by this our certificate
act forth.

First.- The name of the Corporation is "Edison-

"Saunders Compressed Air Company."

Second.

The location of the principal office in this state is at the Edison Laboratory, Valley Road, West Orange, in the County of Essex.

The name of the agent therein and in charge thereof, upon whom process against this corporation may be served is, Weston S. Mallory.

Third.

The objects for which the said corporation is formed are to purchase or otherwise acquire, and to hold, own, use, operate, and to sell, assign or otherwise dispose of, to grant licenses in respect of or otherwise turn to account, any and all patents, inventions, improvements and processes used in connection with or relating to the production or utilization of compressed air, and with a view to the developing of the same, to carry on any other business, whether manufacturing or otherwise, which the corporation may think calculated, directly or indirectly, to effectuate these objects, also to purchase, take on lease or in exchange, hire or otherwise acquire, any real or personal property, and any rights or privileges which the Company may think necessary or convenient for the purposes of its business.

Fourth.

The total amount of the capital stock is Ten Thousand dollars, the number of shares into which the same is divided is One Hundred ⁽¹⁰⁰⁾ and the par value

of each share is One Hundred dollars ⁽¹⁰⁰⁾. The amount with which said corporation will commence business is One Thousand dollars ⁽¹⁰⁰⁾, which is divided into Ten shares of the par value, of One Hundred ⁽¹⁰⁰⁾ dollars each.

Fifth.

The names and residences of the incorporators and the number of shares subscribed for by each, are as follows, to wit:

Richard H. Ogden, East Orange, N. J. Four ⁽⁴⁾ Shares.
William Elbert, New York City, N. Y. One ⁽¹⁾ Share.
Nicholas G. Rose, New York City, N. Y. Three ⁽³⁾ Shares.

Sixth.

The existence of the corporation shall begin on the twenty-fourth day of April, in the year Eighteen Hundred and Nineteen, and shall continue for the term of Fifty years.

In Witness Whereof, we have hereunto set our hands and seal the 15th day of April, Eighteen Hundred and Nineteen.

Signed, Read and Published } Richard H. Ogden (pres.)
in the presence of } William Elbert (asst.)
J. O. Edmonds. } Nicholas G. Rose (asst.)

State of New York } ss.
City and County of New York }

As it is remembered, I had on this eighteenth day of April, in the year of our Lord

One Thousand Eight Hundred and ninety-nine
before me the undersigned, a Commissioner of Deeds
for the State of New Jersey, in New York, personally,
appears Richard H. Dyen, William P. Rogers and
Archibald S. Reese, who after being sworn are
the persons named in and who executed the
foregoing Certificate of Incorporation, and
having first made known to them the
contents thereof, they severally, acknowledge
that they signed, sealed and executed the same
as their voluntary act and deed, for the uses
and purposes therein expressed.

In witness whereof I have hereunto set my
hand and affixed my official seal this 18th day of
April A.D. 1899.

Charles Edgar Mills (act)
Commissioner of Deeds for New Jersey in New York
City, N.Y. 115 & 117 Broadway, N.Y. City.

Received in the Clerk's Office of the County of Essex,
on the 19th day of April, A.D. 1899 and recorded in
Book 16 of Gr. Bur. Co. for said County, Page 235
William C. Hadden, Clerk.

Filed Apr. 22/99

George Warts
Secretary of State.

Following is a copy of Minutes of
First Meeting.

We, the undersigned, being all the parties named in
the certificate of organization, of Edison-Sanders
Compromises Air Company hereby, give notice of the
time, place and purposes of the first meeting of
said Company, and do give this Twenty-fourth
day of April eight hundred and ninety-nine
at 3.30 o'clock in the afternoon, at the Hyde and
Edison Laboratory, Valley Road, in the Township
of West Orange in the County of Essex and State
of New Jersey, as the place of the first meeting of
said Company.

Dated April 24/99.

Richard H. Dyen
William P. Rogers
Archibald S. Reese

The following By-Laws were then adopted:
By-Laws of the Edison-Sanders Compromises Air Company

I

Directors

The number of Directors shall be five, who shall
be elected by the stockholders at their regular
annual meetings and two Directors shall form a
quorum.

Officers

The officers of the Company shall be a President,
a Vice-President, and a Secretary, and Treasurer,
who shall be elected by the Board of Directors,
and shall hold their respective offices for one
year and until their successors shall be

elects. The office of Secretary and Treasurer may be held by one person.

- 3 -

Minor
Officers

The Board of Directors shall have the power of appointing such other minor officers and agents as they shall deem advisable, and may delegate this power to the President.

- 4 -

Salaries

The Board of Directors shall fix the salaries of all officers and agents of the Company.

- 5 -

Privileges

Privileges among the Officers or Directors shall be filled by the Board of Directors.

- 6 -

Meetings

The Board of Directors shall regularly meet on the first Tuesday in March, June, September, and December, in each year. A special meeting shall be called by the President at the request of two directors, and two days' notice shall be given of the same, by mail to the post-office address of each director.

- 7 -

Annual
Meeting of
Stockholders

An annual meeting of Stockholders for the election of Directors shall be held at West Orange on the first Monday of March of each year at twelve o'clock noon, and the polls shall remain open for one hour. Notice of each election shall be given by the Secretary, by mailing a notice to each Stockholder, at least five days before each meeting, addressed to the last known post-office

address of each Stockholder.

- 8 -

Dividends

The Board of Directors shall have the power to declare dividends semi-annually, out of the net profits of the Company.

- 9 -

Certificate
of Stock

Stock of the Company shall be transferred only on the stock certificate book of the Company, and shall be signed by the President and Counter-signed by the Treasurer, and the seal of the Company shall be affixed thereto.

- 10 -

Seal

The seal of the Company shall contain the corporate name of the Company, arranged in a circle and the words "Incorporated 1899 New Jersey" arranged within the circle.

- 11 -

By-Laws

The By-Laws may be altered or amended by a two-thirds vote of those present at any meeting of the Board of Directors.

Moved and seconded that the meeting proceed to the election of Directors.

Motion Carried.

The meeting then proceeded to the election of Directors, and Richard K. Oyer, William O'Brien and Archibald G. Kneass were elected Directors.

On motion, the meeting adjourned.

Wm. O'Brien
Secretary

First meeting of the Directors of the Edison-Lauder Compressed Air Company held this 24th day of April, 1899 at 3.45 o'clock in the afternoon, at the Edison Laboratory, West Orange, N.J.

Present

Richard N. Ogden

William Phipps

Archibald F. Brown

The meeting was called to order, and Richard N. Ogden was elected Chairman and William Phipps Secretary.

Moved and seconded that the meeting proceed to the election of officers for ensuing year.

Motion Carried.

The meeting then proceeded to the election of officers, and the following officers were elected:- Richard N. Ogden, President; William Phipps, Vice-President; Archibald F. Brown, Secretary and Treasurer.

The Statutory oath was then administered to the Secretaries.

Moved and seconded that an assessment of 100% be levied on the stock already subscribed.

Motion Carried.

The Treasurer reports that an assessment of 100% on the stock already subscribed had been paid in full.

Moved and seconded that the Treasurer be

authorized to purchase the necessary books and stationery and to defray the expense of incorporation.

Motion Carried.

The following offer from Thomas A. Edison was then read and ordered spread upon the minutes:-

"West Orange, N.J., April 24th, 1899.

To the Directors of
Edison-Lauder Compressed Air Company
Gentlemen:-

I am the owner of an invention relating to a new and useful method of and apparatus for Re-heating Compressed Air for Industrial purposes, upon which invention I applied to the U. S. Patent Office, for a patent, such applications having been filed February 27th, 1899, Serial No. 706,976, and I have also applied for a British patent upon the same invention.

I offer to sell to you, for the sum of seven thousand five hundred dollars (\$7,500), payable seven hundred and fifty dollars (\$750) in cash and six thousand seven hundred and fifty dollars (\$6,750) in stock of your Company at par value, all my right, title and interest in and to said invention in and for the United States and Great Britain, and in and to the United States and British patents which may be granted on the said applications.

Yours truly
Thomas A. Edison

Moved and recorded that the offer of Thomas A. Edison, be accepted, and that the officers of the Company be authorized to pay over to Mr. Edison the sum of \$750. in cash and some Stock to him for the par value of \$6750, upon the execution by Mr. Edison to the Company of proper instrument of transfer.

Motion Carried.

The following offer from William L. Saunders was then read and ordered spread upon the minutes:-
"New York, April 24th 1897.

To the Directors of
Edison-Saunders Compresse Air Company,
Gentlemen,

I am the owner of a half interest in United States patent No 486,411, granted November, 15, 1892, upon my invention relating to a Method of Increasing the Efficiency of Motor Fluids, and I am also the owner of a half interest in British patent No. 20676 of the year 1897, granted upon the same invention. I offer to sell to you, for the sum of two thousand and five hundred dollars (\$2,500), payable two hundred and fifty dollars (\$250) in cash and two thousand two hundred and fifty dollars (\$2,250) in stock of your Company at par value, all my right, title and interest in and

to the said United States and British patents.

Yours truly
William L. Saunders

Moved and recorded that the offer of William L. Saunders be accepted, and that the officers of the Company be authorized to pay over to Mr. Saunders the sum of \$250. in cash and some Stock to him for the par value of \$2,250, upon the execution of proper instrument of transfer transferring his half interest in said patents to the Company.

Motion Carried

The following offer from The Improved-Airgun and Pistol Company was then read and ordered spread upon the minutes:-
"New York, April 24th 1897.

To the Directors of
Edison-Saunders Compresse Air Company,
Gentlemen,

We are the owners of a half interest in United States patent No 486,411, granted November, 15, 1892, upon the invention of William L. Saunders relating to a new Method of Increasing the Efficiency of Motor Fluids, and we also own a half interest in British patent No. 20676 of the year 1897, granted upon the same invention. We understand that your Company is to purchase,

the other half interest in these patents from Mr. William L. Saunders, and also that your Company is to purchase the entire interest from Mrs. Thomas A. Edison, for the United States and Great Britain in an invention recently made by him relating to a Method of and Apparatus for heating compressed air for industrial purposes, upon which Mr. Edison applied for a United States patent February 27, 1889, Serial No. 706,976, and upon which he has also applied for a British patent. We offer to sell you our one-half interest in the Saunders United States and British patents referred to in consideration that your Company shall have the exclusive right and license in the United States and England, under the said Saunders patents and under the patents which may be granted upon the invention referred to made by Mr. Edison, to make use and sell in those countries apparatus embodying or employing said invention, such right and license, to be restricted to the use of said inventions for mines, tunnels and quarries and to be conditioned upon the payment of a royalty, the amount of which shall be agreed upon between the officers of the Company and the officers of your Company, and such license not to be transferable.

Yours truly,
The Ingersoll-Sergeant Dries Company
By William L. Saunders
"Vice-President."

Moved and seconded that the offer of The Ingersoll-Sergeant Dries Company be accepted, and that the officers of this Company be authorized and directed to enter into an agreement with the Ingersoll-Sergeant Dries Company in conformity with the offer of that Company, upon the execution of proper instruments of transfer transferring the half interest owned by the Ingersoll-Sergeant Dries Company in the Saunders United States and British patents to this Company.

Motion Carried.

Moved and seconded that the Treasurer of the Company be authorized to sign and endorse all checks for the Company.

Motion Carried.

Reuben H. Over then tendered his resignation as President and Director of the Company, to take effect at the adjournment of the present meeting.

On Motion, his resignation was accepted.

Moved and seconded that the Board proceed to the election of a Director to fill the vacancy in the Board.

Motion Carried.

The meeting then proceeded to the election of a Director to fill the vacancy in the Board, and Thomas A. Edison was elected a Director.

Moved and seconded that the meeting proceed to the election of a President to fill the vacancy caused by the resignation of Mr. Byers.
Motion Carried.

The meeting then proceeded to the election of a President, and Thomas A. Edison was elected President.

Archibald G. Row, then tendered his resignation as Secretary, and Treasurer, and Director of the Company, to take effect on the adjournment of the present meeting.

On motion Mr. Row's resignation as Secretary, and Treasurer, and Director was accepted.

Moved and seconded that the meeting proceed to the election of a Director to fill the vacancy in the Board.

Motion Carried

The meeting then proceeded to the election of a Director to fill the vacancy in the Board, and Walter P. Malory was elected Director.

Moved and seconded that the meeting proceed

to the election of a Secretary, and Treasurer, to fill the vacancy caused by the resignation of Mr. Kline.

Motion Carried.

The meeting then proceeded to the election of a Secretary, and Treasurer, and Walter P. Malory was elected Secretary, and Treasurer.

William Elger then tendered his resignation as Vice-President of the Company, and as a Director, to take effect on the adjournment of the present meeting.

On motion, his resignation was accepted.

Moved and seconded that the Board proceed to elect a director to fill the vacancy in the Board.

Motion Carried.

The Board then proceeded to elect a Director to fill the vacancy in the Board, and William L. Saunders was elected Director.

Moved and seconded that the meeting proceed to the election of a Vice-President to fill the vacancy caused by the resignation

of Mr. Rogers
Motion Carried.

The meeting then proceeded to the election
of a Vice-President and William L. Saunders
was elected Vice-President.

On motion, the meeting adjourned.

Archibald P. Rice
Secretary.

EDISON STORAGE BATTERY COMPANY RECORDS

The Edison Storage Battery Co. (ESBCo) was organized in New Jersey on May 27, 1901, in order to develop, manufacture, and sell Edison's alkaline storage battery. Edison served as the company's first president; Walter S. Mallory, as vice president; and John F. Randolph, as secretary and treasurer. The company was initially capitalized at one million dollars. The capitalization was increased to \$3.5 million in 1910 and to \$5 million in 1917, largely to reduce the company's indebtedness to Edison, who financed much of the battery research. Commercial manufacture of a nickel-iron battery began in January 1903 but was suspended on November 1, 1904, when the "E" cells suffered reduced electrical capacity and leakage. After technical improvements to the production process and to the battery itself, beginning with the "A" cell, commercial manufacture resumed in 1909.

Chemicals for the batteries were manufactured in Silver Lake, New Jersey, and the batteries themselves were assembled nearby, first in Glen Ridge and later in West Orange. Despite increased orders and production, the company did not realize a net profit until 1913, due largely to its research budget and indebtedness. Research and development were performed by ESBCo's own Research Department, as well as at Edison's laboratory in West Orange. Product lines and sales structures were expanded throughout the company's history. Batteries were manufactured for mining lamps, train lighting and signaling, submarines, electric vehicles, and other uses. ESBCo had its own sales force, but it also sold batteries through separate sales companies, including one Edison company—the Edison Storage Battery Supply Co. (formed in 1913)—and non-Edison companies such as Miller Reese Hutchison, Inc. (formed in 1916). Foreign sales rights were controlled at different times by various agents, including Herman E. Dick, Paul H. Cromelin, Maurice E. Fox, and John F. Monnot. After Edison's death the company was merged into Thomas A. Edison, Inc.

The records are arranged in four series: (1) Administrative Records; (2) Financial Records; (3) Plant Operations and Research Records; and (4) Sales Records. A finding aid for the archival record group is available at the Edison National Historic Site. Related documents can be found in the Notebook Series, Document File Series, and Richard W. Kellow and Harry F. Miller files in the Legal Series.

Administrative Records. These records consist of incoming and outgoing correspondence, memoranda, agreements, and other material pertaining to the administration of ESBCo. The selected records are arranged in the following order: (1) correspondence (1901-1931); (2) corporate documentation (1901-1924); and (3) letterbook (1904-1916). Among the items not selected are the minutes of the Executive Committee meetings for the period 1916-1918.

Financial Records. These records consist of bound ledgers and journals and unbound statements. The selected records are arranged in the following order: (1) annual statements (1911-1916); (2) general ledgers (1901-1917); and (3) journals (1901-1917). Among the items not selected are two journals (1920-1921); a journal of the Edison Storage Battery Garage, Inc. (1919-1926); a cash book pertaining to the Darby Mine (1905-1907); and numerous monthly statements.

Plant Operations and Research Records. These records consist of unbound and bound material relating to plant operations at ESBCo factories and to research and development done on behalf of ESBCo by its own Research Department and by Edison's West Orange laboratory. The selected items are arranged in the following order: (1) operations reports (1905-1924); (2) research reports (1901, 1914-1923); and (3) research notebook (1901-1903). Among the items not selected are an unfilled orders notebook (ca. 1901-1902); eight receiving books (1901-1916); an automobile test book (1902); five payroll abstract books (1911-1917); six plant operations log books (1920-1921); and graphs showing the performance of batteries used in automotive starters (1922-1930).

Sales Records. These records consist of reports, correspondence, and printed material pertaining to the sales organization of ESBCo. The documents relate to the salesmen and operations of ESBCo as well as to relations with the Edison Storage Battery Supply Co. and Miller Reese Hutchison, Inc. The selected items are arranged in the following order: (1) daily and monthly sales reports (1910-1924); and (2) documents relative to the business of Miller Reese Hutchison, Inc. (1911, 1916-1918). Among the items not selected are a scrapbook of advertisements and promotional articles (1912-1914) and two in-house publications—*Storage Battery Transportation* and *Storage Battery Power* (1928-1958).

EDISON STORAGE BATTERY COMPANY RECORDS ADMINISTRATIVE RECORDS

These records consist of incoming and outgoing correspondence, memoranda, agreements, and other material pertaining to the administration of ESBCo. The unbound correspondence is organized chronologically by decade as follows: 1901-1910, 1911-1920, and 1921-1931. The corporate documentation (1901-1924), also organized chronologically, includes agreements, drafts of agreements, certificates, mortgages, a federal tax filing, and other official documents generated by ESBCo. There is also a letterbook covering the period 1904-1916.

The following categories of documents have been selected: correspondence regarding Edison's participation in, or oversight of, ESBCo administration; letters providing an overview of corporate organization or policies; agreements signed by Edison and drafts authored by him; official documents that detail the financial and administrative organization of the company.

The following categories of documents have not been selected: Executive Committee minutes; correspondence regarding routine details of purchasing, sales, accountancy, and other daily operations; unsigned agreements; patent assignments; letters of transmittal and acknowledgment; items that duplicate information in selected material.

The selected records are arranged in the following order: (1) unbound correspondence; (2) corporate documentation; and (3) letterbook.

Correspondence (1901-1910)

This folder contains documents, primarily correspondence, relating to the business of ESBCo. Included are letters pertaining to the construction of the ESBCo works, corporate finance, real estate, chemical production, the supply and performance of "E" cells, and relations with manufacturers of electric vehicles. Correspondents include Edison, Walter S. Mallory, and William G. Bee of ESBCo; investors J. Wesley Allison, Arthur I. Clymer, and James Gaunt; and John Jacob Astor, Herman E. Dick, James Gayley, and Willis N. Stewart. Most of the outgoing letters are tissue copies of correspondence authored by Allan H. Whiting, sales manager of ESBCo. Some of the items deal with supplies available from the United States Steel Corp., the North American Rubber Co., the American Briquetting Machinery Co., and Edison's own New Jersey and Pennsylvania Concentrating Works. Other letters relate to the electric vehicles sold by the Pope, Baker, and Studebaker companies and to Edison's search for an inexpensive supply of cobalt ore. Also included is a 1903 paper entitled "The Edison Accumulator for Automobiles," delivered by W. Hibbert to the Institution of Electrical Engineers in London.

Correspondence (1911-1920)

This folder contains documents, primarily correspondence, relating to the business of ESBCo. Included are letters pertaining to the outfit and supply of the ESBCo works, corporate finance, and the production and sale of batteries and by-products. Correspondents include Edison, Charles Edison, Robert A. Bachman, Donald M. Bliss, Miller Reese Hutchison, Stephen B. Mambert, Arthur Mudd, C. E. Sholes, and other ESBCo employees; investors Arthur I. Clymer, and William D. Sloane; and Frederick A. Hall, an efficiency engineer associated with Frank B. Gilbreth. Some of the items deal with supplies available from the Sangamo Electric Co., the Troy Electric Co., and the Quigley Furnace & Foundry Co. Other documents relate to the foreign sales of Edison storage batteries; the specifications for batteries required by the U.S. Navy; a sales company called the Transportation Engineering Corp., organized by one-time ESBCo employee, H. G. Thompson; and the development of an automotive starter by the Tidewater Equipment Co. Also included are memoranda and conference minutes summarizing the staffing and structure of the Engineering Department, Research Department, and Tube Inspection and Assembly Department; and an insurance report from 1918 providing the layout of the ESBCo manufacturing plant in West Orange.

Correspondence (1921-1931)

This folder contains documents, primarily correspondence, relating to the business of ESBCo. The documents cover the period from 1921 until after Edison's death, but the bulk of the material is from 1921-1924. Included are letters pertaining to the sale of Edison storage batteries, the real estate and capital of the company, and the processes of production, accountancy, and administration. Correspondents include Edison, Charles Edison, H. A. Altengarten, Frank D. Fagan, Stephen B. Mambert, Arthur Mudd, C. E. Sholes, and other ESBCo employees. Some of the items relate to sales agents Maurice E. Fox and John F. Monnot, to the Edison Storage Battery Supply Co.'s contract with the American Railway Express Co., to royalties collected from the Deutsche Edison-Accumulatoren Co., and to service guarantees granted to ESBCo customers. There are also memoranda concerning employees under Edison's direction and relations between ESBCo and the phonograph and primary battery divisions of Thomas A. Edison, Inc. Related material can be found in the Plant Operations and Research Records.

Corporate Documentation (1901-1924)

This folder contains agreements, minutes, certificates, and other official documents pertaining to the formation and activities of ESBCo. There are also draft versions of official agreements, which Edison helped to prepare. Included are items relating to the organization of the company in 1901, to increases in its capitalization in 1910 and 1917, to mortgages obtained, and to sales agreements executed with the Lansden Co., F. J. Lisman & Co., and others. Some of the documents concern agreements that ESBCo signed in 1912 with the General Vehicle Co. and the Hartford Electric Light Co. for supplying, charging, and maintaining storage batteries in electric vehicles. Also included are meeting announcements with marginal notations by Edison; minutes of individual meetings; three addresses delivered at stockholders' meetings; and a 1919 filing for the Internal Revenue Service regarding the assets and liabilities of ESBCo and the valuation of Edison's patents. Related material can be found in the Harry F. Miller and Richard W. Kellow Files (Legal Series).

Letterbook (1904-1916)

This letterbook covers the period June 1904-November 1916. Many of the early letters are by Walter S. Mallory, vice president of ESBCo. Many of the later letters are by Harry F. Miller, who served as secretary and then as treasurer of the company. Other correspondents include Edison and George A. Meister. Included is correspondence regarding the financial health and administration of the company and relations with its British sales agents. Also included are letters delaying the payment of accounts, announcing board meetings, and arranging for the purchase of insurance and supplies. In addition, there is a series of letters prepared by Miller on Edison's behalf to investor Arthur I. Clymer of Ohio.

Executive Committee Minutes (1916-1918) [not selected]

These minutes cover the period September 1916-May 1918. Members of the ESBCo Executive Committee included Charles Edison, who served as chairman, and corporate vice presidents Robert A. Bachman, Stephen B. Mambert, John V. Miller, and H. G. Thompson, although membership and participation varied over time. Included in the minutes of the weekly committee meetings are discussions of corporate policy, product development, and sales structure, as well as routine matters of day-to-day operations and accountancy. The minutes reflect the frustrations of the Executive Committee with the businesses of Miller Reese Hutchinson and John F. Monnot—individuals with whom ESBCo had sales agreements. Also included are discussions of estimated retooling expenses, standard sales discounts, prices of supplies and by-products, minor details of plant organization, company letterhead, stock on hand, and insurance. In several cases, one committee member was delegated to consult with Edison regarding a proposed product or expenditure.

**Edison Storage Battery Company Records
Correspondence (1901-1910)**

This folder contains documents, primarily correspondence, relating to the business of ESBCo. Included are letters pertaining to the construction of the ESBCo works, corporate finance, real estate, chemical production, the supply and performance of "E" cells, and relations with manufacturers of electric vehicles. Correspondents include Edison, Walter S. Mallory, and William G. Bee of ESBCo; investors J. Wesley Allison, Arthur I. Clymer, and James Gaunt; and John Jacob Astor, Herman E. Dick, James Gayley, and Willis N. Stewart. Most of the outgoing letters are tissue copies of correspondence authored by Allan H. Whiting, sales manager of ESBCo. Some of the items deal with supplies available from the United States Steel Corp., the North American Rubber Co., the American Briquetting Machinery Co., and Edison's own New Jersey and Pennsylvania Concentrating Works. Other letters relate to the electric vehicles sold by the Pope, Baker, and Studebaker companies and to Edison's search for an inexpensive supply of cobalt ore. Also included is a 1903 paper entitled "The Edison Accumulator for Automobiles," delivered by W. Hibbert to the Institution of Electrical Engineers in London.

Less than 10 percent of the documents have been selected. The items not selected include routine exchanges regarding the supply of equipment and materials for ESBCo, the payment or deferral of accounts, individual employment decisions, and delays in production. Also not selected are letters of transmittal and acknowledgment and items that duplicate information in selected material.

ESB - Silver Lake

July 8th, 1901.

Mr. David Tuers,
288 Orange Road,
Montclair, N.J.

Dear Sir:-

Please enter our order for one well to be located at Silver Lake, N.J. You are to start work on this on or before July 15th and complete it on or before August 15th, 1901.

You are to furnish standard casing and all tools and appliances, completing the well without any expense to us, to a depth of 150 feet. If on reaching that depth there is a continuous flow of clear water at the rate of 20 gallons per minute, we will pay you \$1.50 per lineal foot. In case there is not a continuous flow of 20 gallons per minute at the depth of 150 feet, you agree to drill to whatever depth is necessary without additional expense to us, until a continuous flow of 20 gallons of clear water per minute is obtained.

The well is to be 6 inches at top and not less than 5-3/4 inches at bottom.

Yours very truly,

Accepted
David Tuers



Wm. Allen

7/11/01
O.S.

[ATTACHMENT]

Dand Trues

Montclair, N.J.

Waller

complete before Aug 15th
start before 15th

Close contract for sinking
1" well into the 5 3/4" at bottom
a well at Silver Lake for

Storage Battery Co.

price is one dollar & fifty cents
per foot. Contractor furnishes

Casing & all Complete &
guarantees a continuous flow
of ^{clear} water at the rate of

20 gallons per minute at a
depth of 150 feet. If he

will drill deeper at his
own expense ^{with} water in
attained Edison

payment

ESB- 94745



OFFICE AND WORKS OF EDISON STORAGE BATTERY CO.,
SPRINGFIELD, O.

JOHN J. HOPPE, Pres.
ROBERT JOHNSON, V. Pres.



A. S. HENCOCK, Secy.
J. A. BAYARD, Treas.

MANUFACTURERS OF
HOPPE'S LIVE STEAM FEED-WATER PURIFIER
AND EXHAUST STEAM FEED-WATER HEATER.

W. H. P. FISHER, Representative.
Room 701 A. Girard Trust Bldg. Telephone 3-47-32.

PHILADELPHIA, Pa. July 17, 1901.

Edison Storage Battery Co.,
Edison Laboratory,
Orange, N.J.

JUL 18 1901

Gentlemen:-

Order this when price is right
Jee

Your esteemed favor under date of July 13th, asking price
f.o.b. cars Silver Lake, N.J., on one Live Steam Feed-Water Purifier
of 800 gallons capacity per hour, has been referred to this office with
instructions to quote you price, time of delivery and best discount.

In the proposition which we enclose, we quote you on Purifier
for ¹⁰⁰~~200~~ working steam pressure. Should you not intend to carry this
amount of pressure we would furnish you, on the same guarantee, conditions
and terms, a Purifier for a maximum working steam pressure of 150# for
\$807.00.

We could ship the Purifier for ¹⁰⁰~~200~~ working pressure immediately
on receipt of order; should you want the Purifier built for 200# pressure
we would have to build same, and could not make shipment under 10 days.

We enclose blue print drawing giving dimensions of this Purifier.
Any further information that you desire will be cheerfully furnished
if you will write us, or the writer will call at your office and
see you, if you so desire.

Awaiting your further commands, we remain,

Yours truly,

THE HOPPE'S MANUFACTURING CO.,

W. H. P. Fisher

Our address is now #818 Fidelity Mutual Life Bldg.

[ON BACK OF PRECEDING PAGE]

Your esteemed favor of the 17th received,
and replying to same we would state that
the proposition which you have sent us
is not what we want.

We will never carry a steam pressure
of 100^{lb} which would materially reduce the
weight of the purifier and a corresponding
reduction in the price of same.

Kindly ^{to} reconsider your bid on the above
working pressure of 100^{lb}.

Yours very truly

E. P. OBC

E.S.B.

July 19, 1901.

Mr. Herter:-

Go ahead and take charge of the placing and arranging of the Silver Lake Chemical Works. Benson will see that the work is carried out as you plan it.

Order what is necessary through Mr. Mallory to carry out the plan as agreed upon between myself and J.W. Aylsworth; advance the work as fast as possible and get everything in position.

Push the furnace in the Barn for Rafn, as he must make a lot of iron for the 20 cells of battery Rogers is making and has not got much time to do it. Any change he wants, make them quickly.

Yours,

Edison

ESPCo

August 6, 1901.

Mr. Randolph:-

I have given Devonald instructions, hereafter not to pay the Glen Ridge pay roll until it has been approved by Mr. Benson. The recent mistake in rates on the Italians caused us a great deal of trouble and we want to avoid anything of this sort happening again.

Yours very truly,

Devonald
Please note
and be governed
accordingly
Millbury



Office of the President & General Manager,
San Francisco.

August 9th, 1901

Mr. Thomas A. Edison,
Orange, New Jersey.

Dear Sir:-

Would you kindly have 30 sets elements complete Edison storage battery and 30 cells for same shipped to the address of this company San Francisco by rail as soon as you are ready for delivery.

These cells are to be of as large size as you supply not exceeding 300 ampere hours.

Kindly say when we may expect them.

Yours truly,

Vice President & Gen. Mgr.

Ammed
Wan

Mallory

*Write Glas. We will ship
as soon as factory is ready
& say he is the man to give
the first order - we will*

frank

Louglas

Buffalo, Attica & Arcade Railroad Co.

Office of the President.

~~Buffalo, N.Y.~~

Arcade N.Y., October 18th, 1901.

Mr. Thomas A. Edison,
Orange, N.J.

Dear sir:-

Your favor of the 15th inst. at hand. Will you please enter my order for four hundred horse-power of your batteries, to be delivered after your works are in operation. March or April delivery will be sufficient for my purpose.

If you can name price and guarantee now, I would be glad to know them; if not, please do so as early as you can. I have some idea of this from my conversation with you.

Will you also kindly inform me on the following points:

1st. Is it to be expected that a charged battery of say one hundred horse-power will give up this amount of power until entirely exhausted, and will not under any circumstances give up a greater power for a shorter time? - It will give up power at a greater rate than its normal rate but at a greater loss.

2nd. How many hours can a hundred horse-power battery be expected to work to its full capacity, and if the average draft from it is only twenty-five horse-power, will it work a proportionally longer time?

3rd. Will it stand charged and unused without losing power? or 33 horse-power for 3 hours.

I assume that the trolley system can be attached to the same car with this battery, and when under a wire car can be operated entirely by the trolley. Yes

Very truly yours,

J. J. Sullivan
President.

The loss by standing charged in practice is very small

4586 Co. Harb. Equipment

October 21, 1901.

Mr. Herter:-

Mr. Edison says that on any more concrete work for Silver Lake, to use up the old brick instead of buying trap rock wherever it is possible.

Winning

(4901)

Battery.

- from lower
this plan*
- (1) How about Vats? are all that are wanted been ordered. *Order*
 - (2) How about Lumber and plans for erecting vats on.
 - (3) Pump for transferring liquids.
 - (4) Copper lined Vats.
 - (5) Iron kettles, how many wanted, have they been ordered. *X*
 - (6) Stone ware tubs, how many wanted and have they been ordered. *X*
 - (7) Steam Engine, (Brie) for furnishing power, *Engine* for saws, switches, starting box, foundation plans for Engine, steam piping, exhaust pipe, water separator, pipe covering and belting.
 - (8) Number and size motors wanted in plant both buildings.
 - (9) Electric Lights, wiring, switches, volt indicator for lighting.
 - (10) Pump for Artesian well. *Pump from Min.*
 - (11) Condenser for distilled water, tank, etc. *Order*
 - (12) Rollers, boiler setting, stock feed pump, grate bars, stoking tools, wheel-burrows for coal.
 - (13) Filters, Cloth, filter stands, evaporating dishes.
 - (14) Furnaces, fire brick, grate bars.
 - (15) Dryers, steam piping, trigs, pans for drying, fans, motors.
 - (16) Stirring paddles in tanks, motors, etc.
 - (17) Water closet for men.
 - (18) Gasometer and building separately.
 - (19) Hydrogen generating, purifying, etc. in above building.
 - (20) Steam heating of buildings.
 - (21) Vest room.
 - (22) Office.
 - (23) Iron furnaces and piping for hydrogen.
 - (24) Nickel oxide grinding.
 - (25) Nickel and Iron mixing with Graphite.
 - (26) Packing.
- confer pump*

Glen Ridge.

- (27) Water Closet.
 - (28) Plumbing for water closet.
 - (29) Remove the water closet in corner at top and pipe.
 - (30) Get machine shop tools and countershaft O. K. and tools ready.
 - (31) Bunching all up, vices in position, drawers in.
 - (32) Ladder to motor, starting box for saw.
 - (33) Belting for machines.
 - (34) Office furniture, get desks, etc. for furnishing from Edison.
 - (35) Small tools where good from Edison.
-
- (40) Plan of bottom floor 3 story building, position of the hydraulic presses and other heavy machinery.
 - (41) Elevator and Motor, starter, etc.
 - (42) Gearing and Motor for rolls.
 - (43) Hydrogen annealing furnaces.
 - (44) Engine, boiler, water separator, piping (Covered), stocking tools, switch board, amper meters, volt meters.
 - (45) Dispose of scrap iron.
 - (46) Dispose of Wood.
 - (47) Drainage system.
 - (48) Fix up blacksmith shop.
 - (49) Remove brass foundry.
 - (5) Get drain back of long low building.
 - (51) Arrange nickel plating plant.
 - (52) Arrange machinery 2nd story.
 - (53) Arrange machinery 3rd story.
 - (54) Store good but unnecessary stuff in side buildings.
 - (55) Fix up yard.
 - (56) Point brick of buildings.

- (57) Paint where Iron discolours the water paint.
- (58) Hurry Benton on his return to complete machine for briquettes.
- (59) Have Benton design changes necessary to make Edison Briquetting machine into Nickel and Iron Briquetting Machine.
- (60) Benton and Rogers finish model of machine making small briquettes so can go ahead; build lot of them.
- (61) Benton design a roll mixing machine for mixing Nickel with Graphite; also Iron.
- (62) Decide about rolls for grinding Nickel before mixing with Graphite.
- (63) Decide about model press for making cups and order necessary presses 100 horse power daily.
- (64) Test model strip perforator and make what is required for 100 horse power daily 20 hour shift.
- (65) Rogers to decide about the cells, making machinery what is required, Edison will give various size of cells.

Betty S. Condy
Gaunt & Janvier
365 & 367 Canal Street
New York

Pears' Soap

New York, Feb. 18, 1902.

Mr. W. S. Mallory, Esq.,
Haddon Hall,
Atlantic City, N. J.

Dear Mr. Mallory:-

I am sorry to learn from my brother who returned late last night that you are not quite yourself again. I trust that the balmy air of Atlantic City will put you right.

I went out yesterday in all the storm to the laboratory with Mr. Bayly, who is the half owner of the gold mine in Arizona which Mr. Edison has been looking into. Bayly became very much interested in the battery and would like to take some of the bonds upon which you have an option.

My brother and I want you to feel easy in the matter of your subscription, and are disposed to do what will best meet with your wishes.

We will take the ten thousand outright and I will let my partner have one or two and Bayly three or four, Doctor and I taking the balance. Possibly if you could have the ten thousand subscription turned over to me, you could get an option from Edison for five thousand of his, the call holding good to you for a year. If however you could not do this, we will take the five thousand outright and give you the call on the balance of five thousand. It is our wish to take at least this worry off your shoulders. Write me in the matter as I wish to keep it open until I hear from you.

With kind remembrances to Mrs. Mallory, believe me

Faithfully yours,

J. Gaunt.

Feb. 26, 1902.

My dear Mr. Gaunt:-

Replying again to your letter of the 18th inst., I beg to state that I have taken the matter of Storage Battery bonds and stock up with Mr. Edison, and find that he prefers not to give me an option on \$5,000.00 additional, as he has let so much of his subscription go; (He has just let Mr. R. H. Thompson, of Brooklyn, have \$5,000.), also two other of his friends, so his original subscription of \$50,000. is cut down about half.

Under the circumstances, therefore, I am very glad to accept your offer, which I understand to be as follows:

I am an original subscriber for \$10,000. of the bonds of the Edison Storage Battery Co., carrying with them a bonus of \$5,000. of the stock of said Company, according to conditions stated in agreement dated Orange, July 11, 1901, between "The Edison Storage Battery Company, a corporation organized under the laws of the State of New Jersey, party of the first part, and the several subscribers, whose names are hereunto annexed, parties of the second part, and Thomas A. Edison, party of the third part."

I understand that you, Dr. Gaunt and Mr. Bayley will assume my \$10,000. subscription and make payments already called of thirty percent, (three calls of 10% each) and will pay the call of 5% due on or before March 3, 1902 and such further calls as may be made by the Company, under the conditions of contract, and that you will give me a call or option good for one year, on five thousand

Mr. J. G. #2.

of the bonds, carrying ^{will then} twenty-five hundred dollars of stock at same price as that which you paid for the bonds.

I suppose it will be in order to have an agreement drawn; I will be glad to have it done, unless you prefer to do it.

I desire to express again to both Dr. Gaunt and yourself my great appreciation of your kindness in helping me in this matter and while I am very sorry to let go one half of my subscription, there is no one to whom I would rather assign it than to the Doctor and yourself, as I feel convinced, from present conditions of the battery, that the stock will be very valuable.

Sincerely yours,

To James Gaunt, Esq.,
365 Canal St.,
New York.

E. S. O. C.

ROBERT H. THOMPSON,
PRESIDENT.

HENRY D. NORRIS,
VICE PRESIDENT.

EDWARD S. BRADY,
TREASURER.

NATHAN H. DAY,
SECRETARY.

THE THOMPSON & NORRIS COMPANY.

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PRINCIPAL OFFICE & WORKS,
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MEDALS:
AMERICAN INSTITUTE, NEW YORK, 1877.
INTERNATIONAL INDUSTRIAL EXPOSITION, LONDON, 1883.
EXPOSITION UNIVERSELLE, PARIS, 1889.
WORLD'S COLUMBIAN EXPOSITION, CHICAGO, 1893.
EXPOSITION BORDEAUX, 1895.

CABLE ADDRESS:
"CORTEXA, BROOKLYN."

BROOKLYN, N.Y. Feb. 26, 1902

S

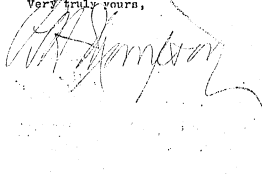
W. S. Mallory, Esq.,
Edison Laboratory,
Orange, N. J.

Dear Mr. Mallory:-

As agreed yesterday, I beg to hand you herewith Check for \$1750.00, covering as I understand it, the three instalments of 10%, and the fourth of 5% due on or before March 3rd on the amount of the \$5000 Bonds of the Edison Storage Battery stock, which Mr. Edison has kindly allowed me to have.

With thanks to Mr. Edison and yourself for the favor, and awaiting due returns, I am,

Very truly yours,



[ON BACK OF PRECEDING PAGE]

Feb. 27th, 1902.

Robt. H. Thompson, Esq.,

Prince & Concord Sts.,

Brooklyn, N.Y.

Dear Mr. Thompson:-

with thanks

I beg to acknowledge the receipt of yours of the 26th inst. enclosing check for \$1750. covering three instalments of 10% each, already paid and the fourth of 5% due on or before March 3rd, on amount of \$5,000. bonds of the Edison Storage Battery Company, which Mr. Edison has agreed to let you have out of his subscription.

I beg herewith to enclose an assignment from Mr. Edison covering the right. We will also arrange to have one of the bonds issued and forwarded to you as soon as it is countersigned, and hereafter as soon as all payments amount to more than an additional \$1,000., bonds will be forwarded to you.

Mr. Edison left this afternoon in very good health and spirits and has given us free hand both in the Cement and Storage Battery work. We hope within three or four weeks to send you an invitation to come to Orange and have a ride over one of the new

Yours, very truly,

Gaunt & Janvier

365 & 367 Canal Street

New York

Pears' Soap

New York, Feb. 27, 1902.

W. S. Mallory, Esq.,

Orange, N. J.

Dear Mr. Mallory:-

I am in receipt of yours of Feb. 26th, the contents of which are entirely agreeable.

I shall be glad if you will have the agreement drawn and bring it in to me, making an appointment to lunch with me as soon as you can. I trust that this will be at an early date because I want you to meet a man who is about leaving for London, and I ^{desire} ~~am desirous~~ that you should see him before he goes.

Please let me know whether it will be agreeable for us to pay at once \$4,000 on account of this \$20,000 and have the four bonds delivered to us. This will anticipate the ^{payment of the} extra 5%, but it will put the matter into a more concrete shape. I presume that you can bring the four bonds in with you and at that time have us sign the agreement, and upon delivery of the \$4,000 get the bonds?

Kindly let me know your pleasure in the matter, and believe me

Faithfully yours,



8384 - Silver Lake
Call Address
"Edison, N. J."

From the Laboratory
Thomas A. Edison

Orange, N. J. Aug. 21, 1902.

Thomas A. Edison, Esq.,
Stewartsville, N. J.

Dear Sir:

I beg to advise you that the mortgage on the Silver Lake property for \$11,175.00 falls due on Sept. 30th and is held by Mr. H. C. Hallenbeck, Mountclair, N. J. Do you wish me to find out if Mr. Hallenbeck will let the mortgage run.

Yours truly,

J. R. Randolph.

Write to get Mr. Hallenbeck
if he wants the mortgage
paid or extended.

United States Steel Corporation

71 BROADWAY EMPIRE BUILDING

VENYL PRESTON,
THIRD VICE PRESIDENT.

New York: 28th August 1902.

Dear Sir:

Herewith returning communication of Edison Storage Battery Company, dated the 5th instant, we beg to advise it is not probable that the special steels of very high tensile strength would answer the requirements of the Edison Company, as material of the character mentioned is so brittle as to practically forbid its formation into shapes such as are mentioned by the Edison people.

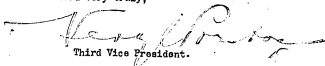
It is quite possible that nickel steel would supply the want of the E. S. B. Company, and, doubtless material of this character could be obtained in the sizes mentioned, although the quantity of an order would be of necessity sufficiently great to warrant making a heat of special steel. Steel of this sort would be very costly in its raw state, and the cost of working it into plates or strips would add very much to its price on account of the difficulties attendant upon working such material and the heavy manufacturing loss incident thereto, and, consequently any price named would be a mere guess. We suppose the price would be at least 10 cents per pound and probably more, even in the form of tubes, which would be easier to obtain than sheets or plates in material of the sort under consideration. We are inclined to believe that the lowest price it would be possible to name for nickel steel would be prohibitive.

United States Steel Corporation

-2-

If we can be of any further service in the matter, we shall
be pleased if you will so advise us.

Yours very truly,


Third Vice President.

Mr. James Gayley, First Vice President,
United States Steel Corporation,
71 Broadway, New York.

J. E. Halsey
ACK the Authors Compliments
142
Institution of Electrical Engineers.

File
THE EDISON ACCUMULATOR FOR
AUTOMOBILES.

BY
W. HIBBERT, Associate Member.

Paper read November 26th, 1903.

Excerpt from the Journal of Proceedings of the Institution of Electrical
Engineers, 1903, Part 165, Vol. 88.

The Institution is not, as a body, responsible for the opinions
expressed by individual authors or speakers.

Excerpt from the Journal of Proceedings of the Institution of Electrical Engineers, 1904, Part 165, Vol. 33.

THE EDISON ACCUMULATOR FOR AUTOMOBILES.

BY

W. HIBBERT, Associate Member.*

The problem of making an accumulator with an alkaline electrolyte has been before the world for many years, and has been attacked by a fairly numerous body of workers. It is known that Mr. Edison is one of this number, and various public statements have appeared as to the results of his labour. Most of these can be neglected as void of authority, but the account published by Dr. Kennelly before the American Institute of Electrical Engineers was evidently based on carefully executed work. From this paper we learned the general nature of the cell, together with certain useful numerical data. 14 watch-cores were obtained from one pound weight of the cell, the average E.M.F. being about 1.25 volts.

It is not necessary to repeat here the other data from Dr. Kennelly's

* Read at Meeting of November 26th, 1903.

paper, as they will be brought up to date by the facts to be quoted from my own tests. It is sufficient to say that very little was done during the next year. The matter seemed to fall into the background, and public opinion settled down to a vague belief that the cell had not yet reached the commercial stage. Indeed, I have heard doubts expressed as to the very existence of the cell. To some extent, I shared this scepticism, not because I doubted the existence of the accumulator, but because of its constitution. I doubted (and expressed my doubts in print) whether the plates would be altogether free from local action, and whether a very small amount of this weakness would not be sufficient to destroy the plate. These fears were based on the data afforded by Dr. Kennedy's paper, more especially the thickness of the plates, and also the probable results of mixing graphite with the active material.

Such anticipations were, I suppose, quite legitimate as anticipations, but they have not been justified by the results of actual trial. It is one of the striking features of the cell, that it recommends itself by work more than can be done by any verbal account.

In the early part of this year, I obtained three of Mr. Edison's cells of small size, and in early June was provided with a Standard Automobile cell. Finally, during part of my summer vacation I was able to run about 300 miles on an automobile driven by 38 Edison cells. The general results of the work done on all these will be described in this paper. I shall confine myself to a somewhat simple statement of the facts verified by myself, feeling sure that these will be most acceptable to the members of the Institute. But it may be worth while mentioning that well-known men at Milan, Paris, etc., have obtained laboratory results which agree in all the main particulars with my own. They have not as yet had the opportunity of testing on the road. A brief description of the cell will be advantageous.

Standard Automobile Cell.—This contains 14 positive and 14 negative plates. Each plate is made of sheet-steel, nickel plated, punched with 24 holes of rectangular shape. In each of these holes is inserted a flat pouch or pocket containing the compressed active material. The walls of these pockets are perforated by exceedingly fine slots or holes, through which the liquid can penetrate. Thus the current can easily pass to and from the active material contained in the pockets.

Active materials.—Both positive and negative plates are alike, except in respect of the active material. The pockets on the positive plate contain nickel peroxide; those on the negative plate contain finely divided iron. Each of these active materials is, I understand, mixed with flake graphite.

Electrolyte.—The liquid is a 20 per cent. solution of potash.

Arrangement.—The plates are fixed very near each other. Yet there does not seem to be any danger of short-circuits. The plates are thin, i. e. 1/16 in., but being made of steel, they are thick enough to give rigidity. As a further precaution, vulcanised rubber separators are put between the plates, making the whole a compact mass, whose stability is calculated to resist all the ordinary mechanical shocks it is likely to undergo.

External arrangements.—The cell is sealed in its steel case, the top

being fixed on by a special solder, not acted on by the potash. Two stout connecting-pins (from the positive and negative plates respectively) come through liquid-tight bushes of vulcanised rubber. These pins are made slightly conical, share also the connectors which fit on them, and the mechanical finish and easy grip of this terminal add to the value of the battery. The connector is further secured by a screw-nut and fastening-pin. The connector has a much higher conductivity than those of the ordinary type of accumulators.

On the top of the case there are also—

(a) A spring stopper with rubber flange, covering the hole by which the electrolyte is introduced, or distilled water, added from time to time.

(b) A vent hole guarded by a gravity valve. This provides for the escape of the gas evolved during charge. The hole and valve are covered by a gauze nipple, which prevents escape of spray while allowing gas to pass. It also prevents any flame finding access to the interior of the cell through the stream of evolved gas.

The complete cell stands 13 inches high (overall) and measures 5 1/2 x 33 inches horizontally. It weighs 178 pounds. A large part of the external steel case is corrugated to increase its rigidity.

An immediate consequence of examining these features of the cell, is to impress the observer with their admirable fitness—perfection is hardly too strong a word. That which is so lacking in ordinary accumulators—mechanical strength or design—is here in obvious and large measure. The general mechanical structure of the cell is well calculated to remove or to diminish any antecedent adverse opinion.

Electrical data.—The E.M.F. is 1.73, though as there is a very persistent gaseous polarisation effect, the figure cannot be regarded as quite rigid. For a long time after charging it is much higher. The internal resistance is 0.003 ohm. The output at 60 amperes is 210 watt-hours, or 11.8 watt-hours per pound.

The diagram Fig. 1, on page 4, shows the arrangements used for charging and discharging.

5 is the cell under test. 111, pieces of trolley wire used for connections. M, M₁, M₂, mercury cups standing in a large tank full of oil. R, a standard resistance = 0.0109 ohm, verified by the Board of Trade.

V and A, voltmeter and ammeter, both re-calibrated for these experiments.

Large lead accumulators were used for charging E. For the purpose of charging, constant resistances of varying value and diameter were used to bridge M, M₁. For discharging it was necessary to bridge M, M₂, as well. The control of either strong or weak currents was quite easy and rapid by putting constant wires in parallel across the mercury cups. In very few of the experiments did the current vary as much as 1 per cent. The average variation was probably about 0.3 or 0.4 per cent.

The curves in Fig. 2 tell their own story.

A striking feature of the curves is the relatively high value of the capacity at the higher discharge rates. The difference in amper-

hours at 30 and 60 amperes is almost negligible. Even at 120 amperes the capacity is 93 per cent. of the maximum, and at 200 amperes is still as high as 84 per cent.

These results at once indicate a valuable feature of the cell for many of the emergencies of engineering. That the quantity obtainable at the high rates should be such a large proportion of that possible at low rates is both surprising and agreeable.

Output.—In relation to the weight of the cell the work done is higher than usual. Taking the output at 210 watt-hours* and the weight at 17·8 lbs., the specific output amounts to 11·8 watt-hours per pound of cell. This must be regarded as a high figure. It is true that nearly equal figures have been obtained with other cells, but confessedly at considerable risk. The weight of lead cells is reduced by making

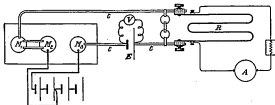


FIG. 1.

the supports very thin, but this shortens life. Output can be increased by using stronger acid, but this leads to rapid loss of charge if the cell stands idle. These serious risks do not accompany the method of getting high specific output in the case of the Edison cell. It is, as we shall see, able to retain a large proportion of its charge for a long time, and its relation to "life," although not yet fully verified by my work, is one of very considerable security as far as can be judged by the results already obtained. In relation to volume, the specific output is 1565 watt-hours per cubic foot.

Influence of Temperature on Output.—In the case of lead cells, this is very marked. With the Edison cell, no definite series of experiments has been made, but accidental circumstances afford evidence of some interest. Some discharges were taken on two of the few very hot days of last summer. The high temperature of the air, added to the heating effect of the currents, caused the temperature of the cell to rise very high. With a current of 120 amperes, it reached 54° C. The output rose to 163 ampere-hours, some 9 ampere-hours more than were obtained at a temperature of 53 degrees. This is an increase of 55 per cent. in capacity for a rise of 21 degrees, or an increase of 0·95 per cent. per 1 degree rise.

* This is at 60 amperes : at 30 amperes the output is somewhat higher.

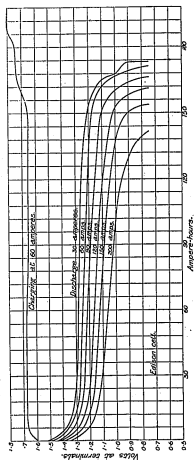


FIG. 2.

Other experiments, not specially designed to test the point, indicated a detectable but small increase. The effect is, however, very much less than with the lead cell. With them, it may be 2 or 3 per cent. per degree centigrade. With the Edison cell, a few degrees difference in temperature would produce hardly any change in the quantity output.

This difference in the effect of temperature doubtless arises from the difference in the nature of the actions going on in the respective electrolytes. The continued working of the lead cell demands a continued supply of the acid at the internal working faces of the porous materials on the plates, and a rise of temperature helps to provide this by increasing the rate of diffusion of acid from the outside. In the Edison cell there appears to be practically no need for diffusion or circulation of the liquid. It is not an active material in the ordinary sense; it acts only as a conductor. Hence a higher temperature cannot change the action except by diminishing the internal resistance of the cell. Even here the action must be differential. For the liquid will diminish in resistance as the temperature goes up, while that of the plates themselves will increase. The first of these, however, being the greater, will determine the resultant change, with a consequent increase in chemical action before the pressure falls to a limiting value. For example, in the experiment described, which led to a final temperature of 54° C., the resistance of the electrolyte would be about 30 or 40 per cent. less than in the corresponding experiment at 33 degrees.

It is also of interest to note that these experiments at higher temperatures were the earliest. The other experiments described in this paper were all done subsequently, and therefore show that no injury had resulted from the heating due to higher external temperature and also to the excessive currents passing through the cell.

INTERNAL RESISTANCE.

It is not easy to determine this except at times when the pressure curve is tolerably flat. Attempts were made, however, to get an approximation by opening the circuit for a moment or two and noting the rise in volts at the terminals. The value—

$$E - V \\ \frac{E - V}{C}$$

comes out as a tolerably constant figure from the various curves in Fig. 2. It rises from 0.0013 ohm with the lower currents, to 0.0016 with the higher. The value does not vary appreciably over the greater part of the discharge. But towards the end, where the pressure begins to fall quickly, the resistance rises at a fairly rapid rate. At the end it may approach 0.004 or 0.005 ohm.

SHORT CIRCUIT.

With the object of testing the power of recovery, one of the small cells was partially discharged, and then short-circuited for forty-eight

hours. After a subsequent long charge it gave the discharge curve B, Fig. 3. Compared with the normal discharge curve A, B indicates a deficiency. It is evident that the cell has not yet recovered. On charging again, however, and taking a second discharge (curve C), the deficit hardly appears; the cell has practically recovered from the harsh treatment to which it had been subjected.

HIGH RATE OF CHARGING.

The foregoing experiments prove conclusively that the Edison cell can maintain a high rate of discharge. The interest of this question hangs on its maximum charging rate, and this I have not been able to reach. The following curves, Fig. 4, show the course of an experi-

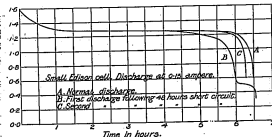


FIG. 3.

ment made to test this point. The cell was first carefully discharged at 30 amperes down to 0.75 volt. It was then charged for one hour, 177 ampere-hours being put in. The current was not quite steady, varying from 180 to 170 amperes over most of the time. Near the close of the hour it fell to 160 amperes. The subsequent discharge shows that 124 ampere-hours were delivered, which equals 70 per cent. of the charge.

Further experiments on this point appear in the later section dealing with the motor-car work, proving that the cell can be charged at over 200 amperes.

FLUXIBILITY OF THE CELL.

The new cell will probably be called upon to stand very rapid and large fluctuations in the value of the current. The following curve, Fig. 5, shows that it behaves like an elastic structure, its pressure rising and falling with varying demand, but responding at such a rapid rate that the lines of changing pressure appear vertical on the diagram.

The change to and from 230 amperes will appear more trying if the weight of the cell be kept in view.

CONTINUED DISCHARGE AT LOWER VOLTAGE.

In most of the experiments so far described, the discharge was stopped when the terminal voltage fell to 0.75. At this point, as all the curves show, the pressure is falling rapidly, and would lead to the assumption that it must speedily reach zero. But this is not the case. At a still lower pressure the rate of fall suddenly alters, and the curve becomes flat again. Presumably this is due to a secondary chemical action arising when the active materials have been more or less changed by the ordinary discharge. The curves given in Figure 6 indicate the extent and variation of this prolonged discharge. They were given

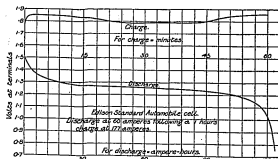


FIG. 4.

by one of the small cells containing four pockets, two positive and two negative. The currents are small, but the indications are typical of the behaviour of larger cells.

EFFECT OF REST.

There are many experiments in my notebook which show that the cell does not suffer when allowed to stand discharged for fair lengths of time. A very good illustration will be given when dealing with the motor-car trials. A parallel question arises as to how far the cell can retain its charge when allowed to stand idle.

Various trials have been made, two of which may be mentioned. A cell was charged fully and allowed to stand 48 hours before discharge began. It then yielded 135 ampere-hours = 91 per cent. of the full discharge.

Part of this deficiency is undoubtedly due to the fact that a discharge

commencing immediately is enriched by the gases contained in the pockets along with the active material. The experiment just alluded to was therefore regarded as giving an idea of the immediate value of this

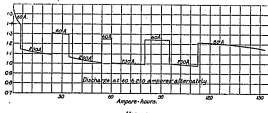


FIG. 5.

gas effect, along with the 48 hours' action due to a short rest, such as the experiment was intended to detect. To get a better estimate of the effect of rest on the active materials, the cell was now charged up again

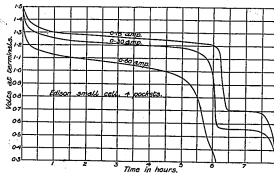


FIG. 6.

and allowed to rest for 26 days. The discharge which followed gave 124 ampere-hours.

Compared with the full discharge, 170 ampere-hours, this is equal to 73 per cent. But compared with the discharge taken after two days' rest, we have an efficiency of 80 per cent. after 24 days' rest. That is to say, the active material lost only 20 per cent. of its charge in 24 days.

The reference here made to the effect of rest on a charged cell makes this a convenient place to say how persistent is the effect of the electrolytic gases on the E.M.F. When charging is complete the E.M.F. is about 1.6 volts, and if the cell be left on open circuit the value falls very slowly to about 1.35. It may be interesting to give a curve showing the time change in the E.M.F. when the charged cell is allowed to stand.

EFFICIENCY.

Efficiency is not very much considered in the present methods of working traction cells. A laboratory experiment is of much less use on this point than on many others. The strength of acid employed enjoins on the user the advisability of charging up when the car comes in, and of giving the cells a "back-up" charge if much time elapses before the car is used again. This reduces efficiency. Tested on the bench, the Edison automobile cell has an efficiency varying from 66 to 80 per cent. Charged and discharged at 60 amperes, I found it to be just about 60 per cent. Charged at 100 amperes and discharged at 60, the efficiency was 56 per cent. Charged for one hour at 177 amperes

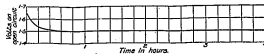


FIG. 7.

rate, and discharged at 60 amperes, the efficiency was 50 per cent. The highest figure (about 66 per cent.) was obtained at 30 amperes.

These figures are lower than would be found with good lead traction cells under the same condition of discharge following immediately after charge. But the experiment described on page 217, in which a cell was kept charged for nearly four weeks, proves that under garage conditions the Edison cell would have a much higher efficiency than the cells now used.

The point is of secondary importance only, as the total cost of keeping a car in running order is so high in relation to the cost of energy, that variations in the latter are of small moment.

OBSERVATIONS ON THE ROAD.

In considering the conclusions which could legitimately be drawn from the foregoing laboratory experiments, it was obvious that the results might be objected to on the ground that an accumulator intended for automobiles ought to do its work on the road, subject to all the irregular vibration which travelling entails. The force of this objection is obvious, and I was anxious to get some chance of watching the battery under running conditions. Fortunately, some 40 cells

arrived from America in July last, and Mr. Dick had 38 of these placed on a runabout, and gave me the chance of observing their behaviour. To this opportunity I could devote only a part of my summer holiday, and therefore the observations do not cover such a long run as is desirable. But they were long enough and varied enough to show that the laboratory results are still obtained when the work is done on the road.

A brief description of the car will suffice. It was a runabout made by the Studebaker Company of Indiana, weighing, when fully loaded and carrying two persons, about 1,050 lbs. Of this, 700 lbs. was due to the 38 cells and their wooden frames.

Unfortunately, the battery and motor were unhappily mated, the latter being a Westinghouse 40-watt 24-amperes machine, while the cells gave an average pressure of about 48 volts. The motor was therefore overloaded all the time, and if it had been a point of importance to investigate the motor and car as well as the battery, some changes would have been necessary. But as the battery could, by careful observation, be tested independently, and as time was not too plentiful, the car was accepted as it stood.

It is not necessary here to describe any of the mechanical details. The controller had four stops with four speeds, but the first and second were hardly ever used except momentarily.

It remains now to state the results of the tests. The form in which this is done is of some importance, because it ought to deal with the battery side of the investigation; traction questions proper are subsidiary. A brief statement will clear them out of the way.

Traction effort.—On good level road the speed was close to 14 miles per hour, and the power about 1,200 watts, which is practically equal to 2,500 watts per ton. These figures indicate about 79 lbs. per ton for the tractive effort. Allowing for the motor efficiency, and putting it at 85 per cent. (probably not so good because of overloading, the tractive effort is 67 lbs. per ton.

The work appears to be about 135 watt-hours per ton-mile, a higher figure than is usually taken in America. This is not astonishing, considering the want of balance between battery and motor.

Cost of Power.—Fourteen miles meant nearly two D.O.T. units. If we take the efficiency of the cells at low as 50 per cent. (it is always low in electric traction as usually carried out), the charging would be 4 units. At 4d. per unit the cost would be 16d., or 0.75¢. per mile.

Turning to the battery. The programme I drew up was intended to yield answers to the following questions:—

1. Is the capacity of the cell the same when running on the road as when discharging in the laboratory?
2. Will the battery stand excessive discharge rates on the road?
3. Will it take a rapid charge and utilize it on the road?
4. Will it recover after being discharged for some time?
5. Does the capacity change in any detectable degree by reason of the mechanical agitation?
6. What attention is required?

When the car was handed over to me it had already been driven by the battery a distance of about 400 miles. This work was done in Paris, the charging being arranged by M. Gadoi. This part of the work, however, I do not describe, the purpose being to exclude all but my own work.

The following is a diary of our runs:—

Aug. 29.	Standing discharge: 159 amperes-hours.	
Aug. 30.	Paris to Versailles and back, through the Park of St. Cloud. Good climb. Run about Paris ...	39 miles.
" 31.	Eighteen miles towards Rouen and back. About Paris...	48 "
Sept. 1.	Journey to London. Car ran across Paris, then	"
" 4.	trains to Havre; train also from Southampton to Waterloo. Motor overhauled at Niagara Garage, and then finished the discharge by running round London. At Southampton the battery had to be partially discharged through wire...	294 "
" 5.	London to Northampton, stopping at Dunstable for a partial charge. Part of the discharge was taken next day round about Northampton	77 "
" 7.	Northampton to Leicester. One stiff climb at Hoppley Hill ...	32 "
" 8.	Partial charge at 100 A. for 90 minutes = 150 A.H. Leicester out towards Nottingham 16 miles and back; through Loughborough ...	38 "
" 9.	Charge 225 A.H. Repeated yesterday's run with extension. Discharge 150 A.H. ...	77 "
" 9.	Charged 1 hr. 25 min., 219 A.H. Repeated the Loughborough run ...	77 "
" 10.	Last six miles run out next morning. One hour's charge, 150 A.H. Same run. Discharge, 107 A.H. (52 miles) ...	65 "
" 10.	Charged 1 hr. 20 min. = 240 A.H., and started off for Northampton. Storm all the way. Wind dead ahead. Most excessive discharge ...	65 "
" 11.	Northampton to London, with partial charge at Dunstable. Run about in London ...	71 "
" 12.	Allowed to stand discharged for ten days.	
" 20.	Charged for 1 hr., 186 A.H. Run round London	31 "
" 29.	Standing discharge: 158 amperes-hours.	

The total distance run is 908 miles while under my control. Adding the 400 miles run before that time gives 908 miles.

It will be observed that several runs were made from Leicester. This was due to the fact that Mr. Hales, the engineer to Mr. Watlies, was kind enough to arrange that he would be ready to assist in charging just as I liked, and at any hour. Mr. Hales also chose for me the route

followed, my request being that it should be a fairly typical English road. The conditions of each run were decided not by the desire to make so many miles, but to solve one of the six questions already mentioned.

1. Is the capacity on the road equal to that found in the laboratory?

In order to answer this and some other questions, I determined to eliminate the influence of car and motor, and to record observations of voltmeter and ammeter while discharging, just as is done in the laboratory. It seemed to me that the trouble involved (traveling with watch and notebook in hand) was worth facing, and it certainly taught me a great deal which could not have been definitely known in any other way.

As will be seen in the section 5, a preliminary experiment proved that the battery had a capacity of 159 amperes-hours at 60 amperes.* The question was, would the same quantity be available on the road? From the many observations, I choose the record of September 9th as one of those most closely watched. The run was from Leicester to some miles beyond Loughborough and back, with a final run round Headgate Park Road. Distance = 40 miles. Eighty observations of current during the 34 hours make the amperes-hours 150.

As the discharge was not then quite complete—the volts being above 0.75 per cell—it is evident that the quantity delivered in one complete discharge was practically the same as that found in the laboratory.

2. Will the battery stand excessive discharge rates on the road?

The original intention was to allow this to be determined by choosing stiff gradients for the car to negotiate. Accidently however, and most unpleasantly, we had a better test than that. The return journey from Leicester to Northampton was commenced in the afternoon of September 10th, the day of the great cyclonic disturbance which spread over England and the West of Europe. That 32-mile run will not easily be forgotten. My ordinary observations were impossible; recording was a failure. But I mentally noted that the wind current on the level rose to 55 or 60 amperes instead of 40, the wind being dead ahead and roads grassy. On the slopes the current was frequently 90 and 100, and on one hill the index passed out of my sight, and must therefore have been momentarily more than 150 amperes.

The journey took 4 hours, as compared with 2½ hours on our outward course. The last 6 or 7 miles were covered at a slow pace, and an interesting point crops up in that connection. Although I could not make a written note of the instrumental readings, I kept a pretty constant eye on the ammeter. While these data were fresh in my mind I calculated the discharge from the cells, and made it close to 190 amperes-hours. I regard this as a figure which errs on the side of deficiency rather than excess. If it be asked how this excessive

* This is somewhat lower than I found in the laboratory. Detailed examination of the thirty-eight cells proved that two cells were of decidedly low capacity—probably from the beginning. This would account for the deficit.

quantity could be obtained, the answer must be found in that extra delivery at lower voltage, which is shown in Fig. 6.

For many purposes this low-pressure discharge is useless, but for an emergency like that of this stormy afternoon it is a great consolation! It helps to carry the car home, although not counted in the normal capacity of the cell. It is noteworthy that the cells deliver the normal current with this lower voltage for quite an appreciable time.

5. Will the battery take a rapid charge (say one hour) and utilise it in discharge?

Several experiments of this sort have been recorded. A one-hour's charge was tried at Leicester. Unfortunately the supply station belonging to Mr. Watton was in a state of transition, but his chief engineer, Mr. Hales, took considerable trouble in giving us special facility: 150 amperes was the maximum current we could get at the time, owing to the unfinished state of the new building and machinery.

The cells received 150 ampere-hours in the hour, and in the subsequent run delivered 107 ampere-hours = 71 per cent. of the charge.¹⁸ This is exactly the figure found in the laboratory test (page 7), and also in the standing discharge test described in (4) and (5). From these three experiments it is clear that with currents of 200, 175 and 150 amperes continued for 1 hour each, the cell absorbs about 70 per cent. of the charge. I have not had facility for trying a still higher current, but it seems probable that the same proportion would hold good even with a higher current.

In Leicester, as in London, the run obtained from a one-hour's charge was quite satisfactory.

4. Will the battery recover after standing discharged?
The car was run about until its speed, and also the voltmeter, indicated that we were on the final slope of the discharge curves. The car was then allowed to stand ten days in the discharged condition. At the end of that time it was charged as follows:—

For 44 minutes at about 200 amperes =	156 ampere-hours.
For 16 " " " " " " " "	100 " " " "
Total = 1 hour's charge =	256 " " "

The car was then run round London and covered 31 miles, yielding 134 ampere-hours. This figure for the discharge was found by numerous observations taken during greater part of the run, combined with less numerous readings for the rest of the time. The efficiency is $\frac{134}{256} = 73$ per cent.

From these data, it is obvious that the behaviour of the 38 cells after ten days' idleness in a discharged condition is very similar to that observed in the laboratory when quite new, and also very similar to that observed at Leicester under high charging rate.

It was thought that the combination of harsh treatment due to standing discharged followed by excessive charging current would prove specially trying, but the cells behaved very well even under these circumstances.

The test now recorded was followed by the final test on capacity as

recorded under (5), the two tests taken together giving a decidedly affirmative answer to the question now under discussion.

As the question respecting the wisdom of leaving a discharged cell idle is one of great importance, I will make one other remark. No injury appears to arise: the cell works as well after as before. But it is advisable to charge for a longer time after such an idle time. The chemical actions—the absorption changes—are a little slower than usual. Or perhaps it is more accurate to say that a greater proportion of active material is in need of restoration by the charge.

5. Does the capacity change in any detectable degree by reason of the mechanical agitations due to running?

Accumulators used for automobiles always deteriorate in capacity after a longer or shorter time. Roughly speaking, even a good battery of the lead type shows a diminished capacity after about 600 miles run, even by the crude test of miles per charge. Such a test must always be crude, because of the influence of the road, wind and gradient on the distance covered, even while the battery is still fresh.

As other duties prevented me taking charge of the car for more than 16 days, with no possibility of running anything like 1,000 miles, it was necessary to arrange for an accurate test of capacity, at the beginning and end of the trials.

A standing discharge was therefore taken at Paris on August 29th, gave 150 ampere-hours. This is slightly less than that found for a single cell in the Polytechnic laboratory, but on examining each cell two were found to be decidedly low, and these two brought down the pressure to the final limit rather prematurely. However, as this figure was to act merely as a standard of comparison for a similar final test, it was accepted, with all the disadvantage of two somewhat inferior cells.

On September 29th, after running 508 miles, the final standing discharge was taken, and gave 158 ampere-hours.

In these experiments the errors of observation may exceed 1, but do not rise to 2 per cent.

The result may be regarded as showing that the capacity remained intact during the 500-mile run.

Remembering that there were two cells in the 38 which were obviously low, probably from the beginning, it is doing no violence to accept the capacity as normal at the end of my trials, and therefore at the end of something like 1,000 miles run since they were put on the car. Fig. 4 gives the discharge curve. The observations at Paris and at London are indistinguishable on the scale to which this curve is drawn.

ATTENTION REQUIRED.

To practical men this is a most important point. They have not generally done justice to accumulators, because they have been unwilling to give them that unceasing examination which is devoted to the other parts of their mechanism. If the Edison cells needed more attention than that now given to lead cells, the need would be an objectionable feature to the men who have most to do with them. It was for this reason that I was so anxious to add to my laboratory work a series of trials from the garage point of view.

The Graham Press,
UNION BROTHERS, LIMITED,
WORKING AND LONDON.

THOMAS A. EDISON,
PRESIDENT.

W. S. MALLORY,
VICE-PRESIDENT.

J. F. RANDOLPH,
SECRETARY-TREASURER.

EDISON STORAGE BATTERY CO.,

GENERAL OFFICE:
EDISON LABORATORY,
ORANGE, N. J.

TELEPHONE, "211 ORANGE."

WORKS:
GLEN RIDGE, N. J.
SILVER LAKE, N. J.
REYNOLD JANNEY, MANAGER
TELEPHONE, "70 BLOOMFIELD."

GLEN RIDGE, N. J., February 19, 1904

Mr. W. S. Mallory, Vice President,

Edison Storage Battery Co.,

Orange, N. J.

Dear Sir:

In making out the inventory for January 1, 1904, we have aimed to follow the plans of the inventory of 1903. Indeed, we have taken the old inventory and wherever the same items were found, we have made no changes, allowing the figures to remain the same, as well as the name of the item, except in a few cases where some item had not been properly described or named.

Wherever machines or items have been transferred to another section of the building, we have made a corresponding transfer in the inventory. All new items have been arranged in their proper places in each section of the building.

I wish to call attention, however, to the fact that many of the machines inventoried are obsolete and really should be charged off to profit and loss. Many of the figures on the machines still in use should be changed to allow for depreciation.

I cannot say that the inventory as it stands represents anything like the true value of the Company's property. Of course, the money that has been put in obsolete experimental machines stands as an investment of the Company, purely as experimental work but has no tangible asset value.

W. S. M.

#2

Feb. 19, 1904

The chief cause of delay in getting out the inventory has been due to the fact that tools and machines and indeed all additions to the factory made during the past year on shop orders, had not been figured up until I came with the Company, which has made it necessary for the timekeeper, (who was the only one familiar with the records on this subject,) to go back to the beginning of last year and figure up all the orders, in order that he might have something like the true value to give to the tools. At one time it was thought advisable to employ someone to do his other work to enable him to give his whole time to the inventory, but I did not care to break in a new man (for whom we would have no use after the inventory was finished).

If my ideas are carried out for this year, the inventory will be complete at the end of the year, indeed, it will be complete at any time during the year with the exception of the floating stock which may be going through the factory and the only thing necessary to obtain a complete inventory of that any time desired will be to copy the stock room record. I purpose keeping before us a copy of the present inventory and whenever an order is issued affecting any item of that inventory, or a transfer is made of any machine, a record of the same will be made on the inventory so that the record will be kept up to date all the time, and we will have nothing to do on next year's inventory but to make a fresh copy of the record, unless indeed it be desirable to verify the lists. I think it not only practicable but very desirable to keep up inventories in this way.

Very truly yours,

Raymond Garrison
Manager

RJ/L

P.S. I have made no footings thinking you may want to change the figures.

45, Landsdowne Road,
Clapham, London, S.W.
May 16-1904.

Dear Mr. Edison:-

I beg
leave to introduce
herewith Dr. Oscar
Schmidt, Director of
the Oerlikon Works
at Zurich. As Mr.
Dick may have in-
formed you, he is
considering some busi-
ness matters with
Dr. Schmidt, who is
a well known expert
in all matters con=

ned with storage
batteries.

I trust you will give
him a favorable re-
port of your new
battery in its present
form, and greatly
oblige,

Yours Sincerely,
W. C. Stewart.

Thos. A. Edison, Esq.,
Orange, N. J.

GENERAL ELECTRIC COMPANY

PRINCIPAL OFFICE
ROSENKOTADY, N. Y.

NEW YORK OFFICE, 44 BROAD ST.

May 27, 1904

Mr. Thomas A. Edison,
Orange, N. J.

Dear Mr. Edison:

I have arranged with Mr. Churchward to get me up an automobile the duplicate of his, and he tells me that it would be well for me to get my word in for the necessary battery, as the rest of the apparatus will be easy to get promptly. You will have the gratitude of Mrs. Hughes if you will set the battery part of the vehicle in motion, as she wants to get the air this summer.

Very truly yours,

Wm. D. Hughes

OTH/M

*Mr. Edison
Has seen this and told
me to give it to Mr. Mallory
of Standard Oil*

*What time Mr. Hughes
will be glad to enter
for the battery + ask
for Standard Oil*

"ELECTRIC GASOLINE."

"ELECTRIC STEAM."

POPE MOTOR CAR COMPANY



INDIANAPOLIS FACTORY.



CHIEF ADDRESS: WAVERLEY
WAVERLEY INDIANAPOLIS.
LICENSEE W.D. & H.C. 4th EDITION USER
TRADE MARK (1904)



TOLEDO FACTORY.

Indianapolis, Ind. June 1, 1904

Edison Storage Battery Co.,

Orange, N. J.

Dear Sirs:

On account of your slowness in making delivery of Edison Batteries quite a number of sales for cars to be fitted with these have been cancelled, and owing to this fact we would kindly ask that you discontinue shipping the balance due on our order originally calling for twelve sets. We exceedingly regret that we are compelled to make such a statement, but it may be ere the end of the present season and perhaps within a short time we will have occasion to call on you for some of these to take care of our orders; and, of course, if such is the case, we hope that you will be in a position to take care of our requirements promptly.

Yours truly,

Pope Motor Car Company,

WAVERLEY DEPARTMENT

Mark R. Brown
Purchasing Department.

MOO'C--MH.

ALL QUOTATIONS SUBJECT TO CHANGE WITHOUT NOTICE. DELIVERIES SUBJECT TO CAR SUPPLY.
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PITTSBURGH, PA.
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TAMPA, FLA.
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**Automobile
Department**

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L. 1111-1111
CABLE ADDRESS "STUDEBAKER"

**GENERAL OFFICES, FACTORIES,
SOUTH BEND, IND.**

Branches:
ALBANY, N. Y.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.
ALBUQUERQUE, N. M.

T. W. GOODRICH, MGR.

STUDEBAKER AUTOMOBILE COMPANY, SUCCESSORS.

South Bend, Ind.

June 2- 1904.

Edison Storage Battery Co.,

Edison Laboratory,

Orange, N. J.

Dear Sirs:

JUN - 9 1904

In answer to Mr. Whiting's letter of May 31st, we are sorry to have you say that the performance of the specially altered automobile used by Mr. Mallory has not recently seemed satisfactory to yourselves. The impression has been given us several times in the past few months by representatives of your company that this particular machine was proving especially serviceable and reliable in your work.

You say that on the level this automobile consumes about 78 watts per 1000 lbs. Please let us know how much current it takes on a hard level road, also the size of the driving sprocket with which it is equipped.

The price of one of our new motors, which are rated each at 30 amperes and 50 volts, would be approximately \$225.00 net with countershaft, pinion, gear and driving sprocket. In order, however, to place one of these motors on the automobile in question, you would be obliged to change the method of suspension, which would involve altering the tubular running frame, and it might be necessary to make corresponding changes in the body.

The rear axle would also need to be changed, as the location of the sprocket thereon would have to be different.

(2) Edison Storage Battery Co.

The efficiency of this new motor is approximately 80%
at normal load without the reduction gears.

Yours very truly,

STUDEBAKER AUTOMOBILE COMPANY.

N.Mc.

W. H. Grodin

6/3

Mr. C. J. [unclear]

The following is
all I can find on this bank
of 110 Ball's Bay [unclear]
Order L-1150. Return Bros. 1 Bank
per Bpp. 20-13. Cost 58.2
for H. d. Parif-p

Order from R. C. [unclear] for
Order L-726. to B.P. B-1,

Hope this will be
what you want.

2- Banks as shown on C-30-

12- 110 Bal ~~Brooks~~ Brooks

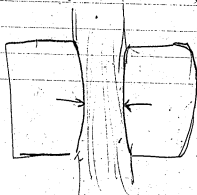
Shells

6-4-04

24

[ON BACK OF PRECEDING PAGE]

Mr. Aybassov



One. Copper work tank, 11 ft dia. x 4 ft deep.
Sides #18 gauge (.049") bottom #16 gauge (.065")
Copper. Double row of copper rivets along joint &
after riveting, treated in with cadmium
solder (primarily by air) using zinc
chloride flux in soldering.

Three copper work boilers with open flange
top & perforated false bottom.
Sides to be #18 (.049") also top & bottom
false bottom to be #18 gauge (.134")
All fixed joints riveted with double row
of copper rivets & treated with cadmium
solder using zinc chloride as flux.

One. Methyl dissolving tank 13'-11 3/4" long
by 4'-6" wide x 24" deep.
Sides of #13 gauge (.075") hard copper &
bottom of #12 g. (.109") hard rolled copper.
Fit with heating coil of 1 1/2" copper pipe
joined by R. & L. coupling, two connections
upper & lower & flange close to inside wall of tank

[ATTACHMENT]

	Two rubber lined tanks for washing	Nickel Solution	283.40	1
✓	Three copper cans ^{for} washing ^{washing}	(2)	119.00	2
✓	One tank 11 ft diameter 4 ft high ^{Lawrence}		365.00	✓ 3
0-	100 pans for drying Nickel hydroxide ^{from sludge from}		116.00	4
	Rearranging mechanical mix grinder ^{from sludge from}		300.00	5
	Securing mill for Nickel ^(might estimate)			
	Pulling up additional ^(Two 2) wash tanks			
Mr. B.	for graphite one of which we have ^{known from}		80.00	6
Mr. B.	Wash tank used for filtering Nickel to be copper lined ^{Lawrence}		61.82	7
	Filter troughs lined with Copper ^{Have got Copper dirt from}			8
Mr. B.	Build Coal furnace to work furnace — building new			9
6-	Stone jars for filtering Nickel — 110 gals each		156.00	10
①	Build ^{for} partition ^{partition}			
	partition or Philippine			

[ATTACHMENT]

- 1- S.S. has material & will make tank, & have it lined w/ NRC.
- 2- Mailed blue prints for bids,
- 3- Mailed " " " "
- 4- S.S. has ordered material and will make
- 5- Silver Lake will attend to.
- 6- Silver Lake, has one, will ask for bids on one.
- 7- Silver Lake has tank.
- 8- Silver Lake, will attend to.
- 9- Silver Lake will attend to.
- 10 Will ask for bids.



Edison Storage Battery Co.,
Orange, N.J.

Newton, Iowa, 6/8/04

Gentlemen:

Replying to yours of 5/5/AHW/L I wrote you asking you to select for me motor and controller, with other necessities, suitable to supplement ten of your cells, and furnish power to run my invalid's chair. I received no answer to my request. Will you not do this for me. As you know by our correspondence, I attempted to assemble necessary supplements to ten cells, and if my order had not been a conditional one, I would not have a useless motor. I don't know what to order. Will you not tell me exactly what to order, and where to order it? I desire to use ten of your cells you recommend, if I can get suitable supplements. It seems to me that, as a matter of business, you might make me out a list of each article needed to supplement your cells, telling me exactly what to order and where I can get it, with prices. I can then send you money for cells, motor with controller, and all needed accessories.

I understand that they are using electrically propelled chairs at the World's Fair. If your new light battery is used on them, perhaps one of them might do, and I can buy a complete wheel of the factory that manufactures wheels used at St. Louis. Perhaps, if your new light battery is not used on them, the factory might substitute your new light battery for one used on wheels used at St. Louis.

Please assist me in arranging a wheel which will lessen the troubles, and add a few joys to the life of a cripple who is dependant upon a wheel.

Yours,
C.W. FAYLOR

Where and by whom were electrically propelled chairs in use on World's Fair ground made?

GENERAL ELECTRIC COMPANY

PERSONAL OFFICE
SCHENECTADY, N. Y.

NEW YORK OFFICE, 44 BROAD STREET

June 8th, 1904

A. E. Whiting, Esq.,

Edison Storage Battery Company,
Orange, N. J.

Dear Sir:-

I beg to acknowledge yours of the 3rd inst. regarding a set of automobile motor curves and would advise that I expect to be able to get this set together within a few days and will take pleasure in mailing it to you.

I will take this opportunity to call your attention to the delivery wagons that the United States Express Company have on order with the Champion Wagon Company of Oswego, N. Y., which are to be equipped with either 60 or 64 cells of Edison batteries. I have been in touch with Mr. T. D. Gore, Manager of the Champion Wagon Company, and have recommended very strongly to him that for commercial reasons it would be to his advantage to use 64 rather than 60 cells. He has just written me that he is going to take the matter up with you either in New York or Orange on Friday or Saturday of this week. Specifications of these vehicles call for a capacity of 2500 pounds, but they are also to have a maximum capacity of 3500 pounds, which as far as he knows may be carried indefinitely. Consequently in our recommendation, we have advised the use of two 80 volt, 24 ampere motors, which from our data we believe to be none too much. He states that the

FILED 2

GENERAL ELECTRIC COMPANY.

J. E. McPherson

Mr. J. E. McPherson has recommended the GE square pattern, and to
get an improved edition, he states that he will bring to you
this matter as well as you also.

Yours very truly,

Wm. G.

General Electric Company. *W. G. McPherson*

HENRY M. LEWIS
PRESIDENT.

WILLIAM H. GILBERT,
DEPT. MANAGER.

CONSTANT E. JONES,
SECRETARY.

GEORGE R. ROBINSON,
TREASURER.

The S. S. White Dental Manufacturing Co.

FOUNDED BY S. S. WHITE IN 1844 - INCORPORATED IN 1881

MAIN OFFICE
CHESTNUT AND TWELFTH STS.
PHILADELPHIA

PUBLISHED BY THE COSMOPOLITAN
Telephone 2010 Gramercy.
TELEPHONE 101111 ST

*Singer Building
5, 7 and 9 Union Square West*

New York June 9th, 1904.

BRANCHES

NEW YORK, CHICAGO,
BOSTON, BROOKLYN,
ATLANTA, ROCHESTER,
BERLIN, BUENOS AIRES,
ST. PETERSBURG, TORONTO.
CABLE ADDRESS NEW YORK HOUSE
"WHITE DENT"

Edison Storage Battery Co.,

Orange, N. Y.

Gentlemen:-

We were advised by Dr. E. R. Varcoe of Graham, N. Y., to whom you shipped a 4 Cell E. 18 complete Storage Battery outfit, that he experienced some anxiety regarding its performance owing to the fact that it was so noisy that he thought it had gone wrong. Kindly send us copy of the letter you sent him in reply to his inquiry so that we may be kept informed as to what caused his experience, in order to answer any inquiries that we may have from future customers, regarding the peculiarities of the Edison Battery.

Yours truly,

THE S. S. WHITE DENTAL MFG. CO.,

per *M. J. Jones*

6/10/64/AHW/C.

Mr. E. W. Muzzy,

General Electric Co.,

44 Broad St., N. Y. City.

Dear Sir:

Replying to yours of the 8th inst., we beg to state that the writer wishes to thank you for forwarding the curves as promised.

In regard to the delivery wagons for the U. S. Express Co., would state that the writer called on Mr. Snyder yesterday, and impressed upon him very strongly the advisability of using 64 cells in place of 60. Mr. Snyder stated, however, that they were installing their own generating plants, and that therefore they could handle 60 cells just as economically as they could 64, which of course is true. The main objection to using 64 cells was the increased battery compartment required, which the size of their wagon does not conveniently permit. They are having designed a number of larger wagons, which are to use the E-45 battery and which had been laid out for 54 cells. This matter was thoroughly discussed, and I believe that Mr. Snyder was convinced that it would be proper to use the same number of cells in both cases, in order to facilitate charging. Kindly treat this latter piece of information as confidential, as it is not generally known that they are equipping a line of large wagons as well as the small, although you may be already posted on this matter.

In regard to the matter of equipment for the 2500 lb. vehicles, would state that Mr. Snyder did not bring up this point

E. W. M. - 2.

with me, and I would not be in a position to state definitely which motor in my opinion was best adapted to the work, without knowing the weight of the vehicle, together with the speed required and other information. With such information, I shall be very glad to give Mr. Snyder my unbiased opinion, and I might say that in general I should always recommend the larger motor without having any particular data at hand, as we all know that a large factor of safety or overload in these motors is a very good thing.

I will take this matter up further with Mr. Gere of the Champion Wagon Co., whom I met at the laboratory some time ago.

Yours very truly,

EDISON STORAGE BATTERY CO.

6/10/04/AHW/C.

The Pope Motor Car Co.,
Indianapolis, Ind.

Dear Sirs:

Replying to yours of the 1st inst., would state that we regret exceedingly that you have seen fit to cancel the six remaining orders which we have on our books. However, we feel that you are perfectly justified in doing this, as we have been unable to keep our promises satisfactorily in regard to shipments, and we fully appreciate that the active season is practically at an end. We trust, however, that we will be in a position in a short time to fill orders without delay, and shall be pleased to receive orders from you at a later date, as required by your Patrons.

Thanking you for past favors, we are,

Very truly yours,

EDISON STORAGE BATTERY CO.

6/10/04/AHW,C.

Studebaker Bros. Mfg. Co.,
South Bend, Indiana.

Gentlemen:

Replying to yours of the 2d inst., in regard to the matter of Mr. Mallory's automobile, would state that this machine consumes 47 amperes on hard level roads. The size of the driving sprocket is 14 teeth. This machine we calculate should not consume over 35 amperes, and we believe that the trouble is with the motor, since the running gear has been entirely gone over and properly aligned. In regard to the reliability of the vehicle, would state that there is no complaint on this score whatever, the vehicle having been run continuously and given good service, but you can readily understand that if we can decrease the current consumption from 47 amperes to 35, it will materially increase the mileage, which would be a very desirable point. We would be obliged to you if you could forward us a sketch or blue-print, showing the necessary alterations which would have to be made in the frame to accommodate the new motor referred to.

Awaiting your reply, we are,

Yours very truly,

EDISON STORAGE BATTERY CO.

6/10/04/AHW/C.

The S. S. White Dental Mfg. Co.,
5 Union Square, W., N. Y. City.

Gentlemen:

Replying to yours of the 9th inst., would state that the letter which we wrote to Dr. Varcoe has been mislaid, but the writer recollects the general contents. The Doctor was quite worried from the bubbling of these cells while on charge and after being taken off charge. This bubbling is perfectly normal in the battery, and will continue for hours after the battery has been taken off charge. It does not indicate local action, but is simply the hydrogen gas which has generated in charging working out from the pockets. We informed the Doctor that as long as the battery gased freely it was in proper working shape, and when the battery ceased to gas on charge there is some trouble.

Trusting this will make the matter clear, we are,

Yours very truly,

EDISON STORAGE BATTERY CO.

6/10/04/AHW/C.

Mr. Chas. T. Hughes,

General Electric Co.,

44 Broad St., N. Y. City.

Dear Sir:

Your letter of the 27th ult. to Mr. Edison, has been referred to the writer, and in reply I beg to state that I am this day taking up the matter with Mr. Churchward, and will do everything in our power to equip this vehicle to your satisfaction. I will get the necessary information from Mr. Churchward, and feel sure that the details will be carefully attended to.

We are,

Yours very truly,

EDISON STORAGE BATTERY CO.

6/10/04/AHW/C.

United States Express Co.,

8th & Henderson Sts., Jersey City.

Gentlemen:

We beg to acknowledge your order of the 4th inst., for 15 sets of type E-27 Edison batteries, consisting of 60 cells each to be arranged in five-cell crates. We shall endeavor to make delivery of the first battery, as requested, on the 15th of July, and at the present time can see no reason why this promise cannot be fulfilled. We will also endeavor to deliver the remaining 14 sets at such dates as you may specify later to be most convenient to you. These batteries will be delivered to you fully charged and equipped, ready to be placed in the vehicle.

In regard to the guarantee on these batteries, would state that we guarantee them to be free from defects of workmanship and material for a period of one year, and stand ready to make good any defects of this nature which may arise within that time.

Confirming the conversation of our Mr. Whiting with Mr. Snyder, we beg to impress upon you again the advisability of placing the same number of cells in both your 2,000 and 4,000 pound wagons, as it will facilitate the charging of these vehicles very greatly, and will be much more economical to operate, doing away with the cost of booster service.

U. S. E. Co.

-2-

6/10/04.

We shall be pleased at any time to furnish you with any information in our power to assist you, either in the equipment or in the operation of your vehicles, and will call upon you at any time at your solicitation.

Thanking you for your order, we are,

Yours very truly,

EDISON STORAGE BATTERY CO.

6/10/04/AHW/C.

Mr. T. D. Gere, Mgr.,
Champion Wagon Co.,
Owego, N. Y.

Dear Sir:

The writer had a lengthy interview with Mr. Synder of the U. S. Express Co. yesterday, and he informed him that you are designing some 4,000 lb. wagons for their service. He stated to me that Mr. Maxim recommended using 54 of our type E-45 cells. As they are equipping their small wagons with 60 of the type E-27, it would be most advisable to use the same number of cells in the larger wagons, as it will facilitate the charging of these batteries, and will do away with rheostats or boosters, whichever system might be adopted. I wish that you would communicate with me at your early convenience on this subject, as we want to do everything in our power to give the U. S. Express Co. the best of service, and in our opinion it would be a gross mistake to equip these large wagons with only 54 cells.

Awaiting your reply, I am,

Yours very truly,

CABLE ADDRESS
"AUTOMOBILE"
INDIANAPOLIS.

NATIONAL
MOTOR
VEHICLE CO.

W.U.T. CODE.
A.B.C. CODE.
[4TH EDITION]

Indianapolis, Ind.

June 11, 1904.

Edison Storage Battery Co.,

Orange, New Jersey.

Gentlemen:-

We acknowledge receipt of your favor of the 1st. It is exceedingly interesting to note that you are furnishing us with circulars to be shipped with each battery, giving directions for assembling etc.,

Now, this would be highly satisfactory to us if we were getting deliveries on batteries. You will note that we have gone to considerable expense to bring out a special Edison Model, we are advertising it in magazines and, general circulation, but, it would seem that we are very much handicapped in obtaining deliveries of the battery.

Will you kindly inform us, for the information of the Sales Department, of this Company, just what we can expect on deliveries?

Yours very truly,

NATIONAL MOTOR VEHICLE CO.,

Dict. TJH/B.

Thurday.

6/13/04/AHW/G.

National Motor Vehicle Co.,
Indianapolis, Ind.

Gentlemen:

Replying to yours of the 11th inst., would state that we will this week be in a position to make fairly prompt deliveries, and we are at the present time doubling the capacity of our plant, in order to take care of our patrons in much better shape than heretofore. We have experienced some difficulty with our automatic machinery, and we believe at the present time that we have remedied all the faults developed. We desire to do everything in our power to fill your order as promptly as possible, and feel sure that the service rendered by this company will in future be satisfactory in every way. We have only one set of batteries on order for you at the present time, and we will endeavor to make shipment of these the first part of next week, if not before.

Trusting this will be satisfactory, we are,

Yours/very truly,

EDISON STORAGE BATTERY CO.

C. L. Colman, President

C. L. Colman, Vice President

C. L. Colman, Secretary

C. L. Colman Lumber Company

Manufacturers and Dealers

La Crosse, Wis.

JUN 16 1904
June 13, 1904.

The Edison Storage Battery Co.,

Orange, New Jersey.

Gentlemen:-

I recently purchased of the National Motor Vehicle Co. of Indianapolis, Ind. a "National Stanhope" containing forty of your E-18 cells. When charging the battery at the rate of 40 amperes, what will the volt meter read when battery is full? Two of the cells have leaked and I have had them resoldered here. The National Company have sent me one cell with electrolyte to replace the first one that leaked. Will not ordinary solder withstand the action of the caustic potash solution? Cannot the electrolyte be prepared by a chemist here instead of being shipped by your factory? Is the electrolyte simply a 20 per cent solution of caustic potash and distilled water? Kindly answer the above and give me any further information regarding your battery and oblige.

Yours respectfully,

C. L. Colman

6/14/04/ATW/C.

Mr. C. W. Faylor,
Newton, Iowa.

Dear Sir:

Replying to yours of the 8th inst., we beg to state that we have taken up the matter of motor, &c., with the Crocker Wheeler Co., but as yet have not received any reply. They are working on this proposition, and as soon as we have any information we shall take great pleasure in forwarding it to you at the earliest possible moment.

Yours very truly,

EDISON STORAGE BATTERY CO.

The Oxford Copper Company.

COPPER AND NICKEL ORES, MATTES, BULLION, ETC.
GENERAL OFFICES, 74 BROADWAY, NEW YORK, WORKS AT CONSTABLE HOOK, N.J.
CABLE ADDRESS "QUEBATH" NEW YORK.
43 EXCHANGE PLACE

SAMUEL A. BENNER,
PRESIDENT.

New York

June 14, 1904.

No. 3

JUN 15 1904

Mr. W. S. Mallory, Vice President,
Edison Storage Battery Company,
Orange, N. J.

my file

My dear Mr. Mallory,

Confirming our conversation of yesterday in my office here in New York, we will send you immediately two metallic nickel plaquettes, weighing about 36 lbs. each, so that you may try the same in your electro-plating.

Please understand that these plaquettes are really rough blocks that we now produce for use in steel making. They are simply dumped into the steel furnace and remelted, so there is no necessity for making them exact to size. I think, however, that if you can use such a grade of nickel in your electro-plating, we can make you a cast anode of the same grade of nickel suitable for your use. This, however, will depend largely on the amount of nickel that you could order of each shape at one time.

Yours very sincerely,

Samuel A. Benner
President.

Agreement to
place

SAB/C

note & return

We have received this & will
arrange for it & send it to
H.R. to use in their bath
& as soon as it works in practice
will report on conclusion of test.
S.A.B.

"TOLSON'S GASOLINE."

"TOLSON'S STEAM."

POPE MOTOR CAR COMPANY.



INDIANAPOLIS FACTORY.



WAVELEY ELECTRIC VEHICLES.
ONE ADDRESS FOR THE COMPANY
 WAVERLEY INDIANAPOLIS.
LICENSERS, U.S.A. & C. 4TH EDITION USED



TOLEDO FACTORY.

Indianapolis Ind. June 16th, 1904. JUN 18 1904

Edison Storage Battery Co.,

Orange, N. J.

Dear Sirs:-

We are mailing you under separate cover our regular form of order calling for 4 only E-18 cells that are to be shipped direct to one of our customers at Cedar Rapids, Iowa. We have also requested that you send 4 of your 9 cell trays, so that he can change the 32 cell battery he now has into a 36 cell. We are compelled to furnish the four extra cells, no charge, and therefore think that under the circumstances you should furnish the extra trays gratis.

It is very important that immediate shipment be made, as the gentleman in question is more than dissatisfied with the results he is obtaining from his car. We therefore trust that this order will receive your special attention and that you will do everything in your power to expedite delivery. Let us have definite information from you by return mail advising just exactly when you anticipate forwarding same.

Yours truly,

Pope Motor Car Company,
 WAVERLEY DEPARTMENT

Mark R. Brown

Purchasing Department

M.C. O'C-F.A.

June 17, 1904

Mr. E. L. Coleman,

La Crosse,

Wis.

Dear Sir:

Replying to yours of the 13th inst. would state, the Edison cell on charge when nearly full will read about 1.85 volts per cell. You cannot, however, judge as to the amount of charge in your battery by this voltage, as you will find that shortly after being put on charge, the voltage will rise to over 1.8 volts per cell, and will remain constant throughout the remainder of the charge.

In regard to leaky cells we would state that ordinary solder will not last on these jars, as the potash solution will attack it rapidly. We will not be responsible for cells in which electrolyte other than that furnished by ourselves, is used, as we find the commercial potash is not sufficiently pure for our purpose, and we subject the potash here to special chemical treatment whereby all trace of impurities are removed.

Should you have any further trouble with leaky jars, we would be pleased to have you communicate with us and we will forward you without delay cells to take the place of the defective ones.

Very truly yours,

Edison Storage Battery Co.

AHW/L

June 20, 1904

Pope Motor Car Company,

Indianapolis,
Ind.

Gentlemen:

Replying to yours of the 16th inst. would state, we are forwarding to Cedar Rapids, Iowa, 4 E-15 cells, 4-9 cell crates for the same. We shall be pleased to give you credit on the old crates when returned, as we appreciate that adding 4 cells to this equipment is going to make a much better showing for the Edison Storage Battery Co., as well as for the Waverly Company,

Trusting this is satisfactory, we are,

Very truly yours,

Edison Storage Battery Co.

AHW/E

P.S. These cells went forward today.

Edison Ore-Milling Syndicate Limited.

TELEGRAPHIC ADDRESS.
"OBSESSION-LONDON."
LONDON W.C.
SIR EDWARD.

Fitzalan House, Strand, Street

London, W.C.

JUL 1 1904

June 21, 1904

My Dear Mallory.

I have received a letter from Mr. Baudouin enclosing copy of Parishall's letter at your suggestion for which I thank you. Parishall as a man & an engineer is all right but in trading he falls short.

The part of the letter is good when he informs Mr. Edison that "three of them are directors of the British, Egyptian & Java Railway Co. & are acquainted with this." I should be in London to see Parishall. This morning since he all right. He has tried to tell me and vice versa. With best wishes
Yours
Frederick Baudouin

HENRY H. LEWIS,
PRESIDENT.

WILLIAM H. GILBERT,
GENL. MANAGER.

CONSTANT E. JONES,
SECRETARY.

GEORGE R. ROBINSON,
TREASURER.

The S. S. White Dental Manufacturing Co.

FOUNDED BY S. S. WHITE IN 1844 - INCORPORATED IN 1881

MAIN OFFICE
CHERRYBUT AND TWELFTH STS.
PHILADELPHIA

PUBLISHER DENTAL COSMOS

TELEPHONE 24-18TH ST

*Spingler Building
5, 7, and 9 Union Square, West*

New York

BRANCHES

NEW YORK, CHICAGO,
BOSTON, BROOKLYN,
ATLANTA, ROCHESTER,
BERLIN, BUENOS AIRES,
ST. PETERSBURG, TORONTO.

CABLE ADDRESS NEW YORK HOUSE
"WHITENT"

101
22
100

*Edwin Strage Battery Co.,
Hew Ridge, N. J.
Fruitmen:*

June 21, 1904.

*Enclosed find orders # 3949-3950 which
please give your usual prompt and careful attention.
Kindly advise us when you expect to get
around to the time when you can allow us a
discount on orders we are sending you.*

Sincerely,

THE S. S. WHITE DENTAL MFG. CO.

W. S. Bennett.

Parsons Newark June 25/04

JUN 25 '04

My dear Sir:

I see in this evening's News that your large plant at New Village has again resumed operations. Mr. Edison, is there any prospect of securing a position of some kind there. I formerly worked for you some years ago at your factory at Harrison in the Pump Room so we could it.

Mr Edison, if there is
anything you could do for me
in any way, it would be
very gratefully appreciated by
me. Hoping, my dear Sir,
to receive your most favorable
reply, I beg leave to remain
with high respect,

Your most obedient servant

Wm Hopper

66 Thompsons Inn

Newark

W.H.

To Hon^r

Thomas A. Edison

Mr Wm Hopper was Supr
at that time. I am at present
out of employment, and being
a nervous man (and one who
does not care to be idle,) I
concluded to ask you for a
position of some kind. My
former employer has disposed
of his business, and sails for
Europe July 6th, otherwise I
would have been employed. My
position was bookkeeper and
freeman. I do not use
drink, and am a steady
man, and attentive to my
duties.

June 22, 1904

S. S. White Dental Mfg. Co.,

5 Union Square, West,

N.Y.

Gentlemen:

We beg to acknowledge your orders #3949 and 3450 calling for 4 type E-18 cells with accessories and catalogues.

We shall endeavor to ship these batteries to you inside of the next two weeks and trust this will be satisfactory.

In regard to allowing you a discount from our present list price, would state, this matter has not as yet been taken up but it will undoubtedly be several months before we are in a position to quote anything off our list price.

Thanking you for your orders, we are

Very truly yours,

Edison Storage Battery Co.

AHW/L

"ALIS VOLAT PROPIIS."



EDISON'S OR A.B.C. CODE USED
CARDS ADDRESS
"BARKER" CLEVELAND.

W. C. WHITE, Pres.
WALTER C. BAKER, Vice Pres.
N. L. DODD, Secy.
FRED S. WHITE, Treas.

The Baker Motor Vehicle Co.
Manufacturers of
High Grade Motor Vehicles
147 1/2 St. Louis, Tenn.
Central, Ohio and Co. A. B. B.
Long Distance Telephones
Both Houses
Cleveland, O. June 23rd, 1904.

Mr. W. S. Mallory,

The Edison Storage Battery Co.,

Orange, New Jersey.

Dear Sir:-

Yours of the 20th is at hand. We received your telegram and we now have your letter. Mr. Owens did pay us a week or two ago for the batteries and instructions were given our cashier to send you check for that set, but this was overlooked. Now we have two other sets of batteries out from which we have heard nothing and we suppose they are giving good satisfaction. The other sets of batteries are a matter of considerable doubt. We have now instructed our cashier to forward you a check for these three sets. We believe we are going to have considerable trouble with the batteries that we have purchased. We have one set in Utica in which the mileage drops right down, but we have not had time to send a man there to find out about it, but these items are a good deal of expense and trouble to us to have to keep sending men to different cities to post them up on Edison batteries. We have a set here that is impossible to keep up; that is the internal resistance of the batteries is such that they drop right down every time they strike a hill.

We will see you personally at a later date and go over this matter thoroughly. In the meantime, we remain

Yours very truly,

The Baker Motor Vehicle Co.

C.-No.1.

W. S. Mallory

JUN 24 1904

[ATTACHMENT]

Baker & V Co

to -

to -

your ^{order} is ^{not} ⁱⁿ ^{order}

and it is not at all satisfactory to
us - we shipped ^{you} the batteries when
we could have shipped them to your
competitor and received prompt
cash - ^{any of} the batteries are not
satisfactory we propose to stand
behind them - we most however
insist that you either return the
batteries to us or send payment at
once.

you

American Briquetting Machinery Company,

SUCCESSORS

The Henry S. Mould Company,

GENERAL OFFICES: EMPIRE BUILDING.

BRIQUETTING MACHINERY

ALL AGREEMENTS ARE CONTINGENT
UPON STRIKES, ACCIDENTS AND OTHER DELAYS BEYOND OUR CONTROL.

Pittsburg, June 25, 1904.

Messrs. Pilling & Crane, Agents,
Chateaugay Ore & Iron Co.,
Girard Building,
Philadelphia, Pa.

Muller
27

Gentlemen:-

We beg to say that we have secured the American rights to a Briquette Finishing Process, which we think will be of interest to you.

We do away with the use of any binder, simply using sufficient moisture to make the Concentrated plastic, briquette under heavy pressure and give the briquettes a heat treatment, which causes the fusion of the silica in the ore and produces briquettes of such hardness and general good qualities as we have never before been able to do with any binder.

This Process was discovered in Sweden by the Chief Engineer of the Dunderland Ore Company, a very large English Corporation, who control a large deposit of low grade magnetic ore in Norway, and which to make their proposition a commercial one needed a successful Briquetting operation.

This Company is headed by Sir David Dale, who is also at the head of the Consett Iron Works, Lord Armstrong, Lloyd Williams of Middleboro, Mr. Martin of Ebba Vale Iron Works, Lord Kelvin, W. Rhodes, Sir. J. Lawrence, Commander F. H. Pollen, etc., who represent the principal iron and steel interests in Great Britain.

P. & C. - #2

The Process as operated in Sweden was found to be of the right principle, but very crude, and has been improved and perfected and is to be used in a Plant now building in Norway to briquette 2500 tons per day of Magnetic Concentrates, and for which Plant we have the Contract and are building the Briquetting Presses and Apparatus.

For some considerable time a small Plant of this principle has been operated near London in order to demonstrate fully on a commercial basis.

We are prepared to erect a Briquetting Plant with this system of any size capacity, and in this connection would say that we have redesigned and very much improved our Press and Apparatus.

If you desire to have some tests made in England on your Concentrates, we would be very glad to have this done at no expense to you except the freight on the material, and if you are inclined to send some over, say a barrel or two, we would be glad to give you shipping directions.

While the Plant installation cost is somewhat higher than we have heretofore figured on, the cost of operation is much lower than we have ever been able to figure using any binder.

Trusting to have your views on the subject, We are,

Yours very truly,

AMERICAN BRIQUETTING MACHINERY COMPANY,

Henry S. Mould
President.

E 5 B 60

JOHN JACOB ASTOR,
ESTATE OF WILLIAM ASTOR.

NY 23 WEST 26TH STREET.

*Answered
July 13/04*

New York. July 13th, - 1904.

Dear Mr. Edison,-

I was very glad to get your letter of July 1st.
Can you tell me how much of the Edison Battery Company's stock Mr.
W. S. Pilling wishes to sell?

Thanking you very much for your kindness in
looking into this matter,

Yours very sincerely,

J. J. Astor.

J. J. Astor -

There being some delay in
receiving your answer I find Mr Pilling
sold as much as he is willing to sell at
the original price he paid and now says that
he will not sell any more except he obtains
 $\frac{1}{2}$ of the stock he got as a bonus perhaps he
will relent in time as I know he is terribly
hard pushed for ready money.

Edison

THOMAS A. EDISON,
PRESIDENT.

W. S. MALLORY,
VICE-PRESIDENT.

J. F. RANDOLPH,
SECRETARY-TREASURER.

EDISON STORAGE BATTERY CO.,

GENERAL OFFICE:
EDISON LABORATORY,
ORANGE, N. J.

TELEPHONE "311 ORANGE"

WORKS:
GLEN RIDGE, N. J.
SILVER LAKE, N. J.
MYNOLD-JANNEY, MANAGER
TELEPHONE "70 BLOOMFIELD"

*Address all correspondence
to Glen Ridge, N. J.*
GLEN RIDGE, N. J., July 22, 1904

Mr. J. F. Randolph, Treas.,

Edison Storage Battery Co.,
Orange, N. J.

Dear Sir:

Replying to yours of 1st inst. would state, we have been paying 20 cents per gallon for our dynamo oil from the Crow-Levick Co., which we will try to improve. The oil which we had previous to this gave a great deal of trouble and we, therefore, substituted the higher priced oil.

In regard to electrical supplies, we purchase everything which is not in a great rush, from New York house, on account of their price, but a great deal of material is wanted at once and is purchased in Newark, as it can be sent out at once on the trolley cars. We will, however, purchase whatever is possible from the N.Y. house instead.

Regarding the Hungerford Brass & Copper Co., would state, they have been out out for sometime as their prices were too high. We are purchasing brass from the Ansonia brass Co. at a much reduced price.

The lettering of 3 sheets of Storage Battery curves was done for the St. Louis Exposition, where these curves are now framed and on exhibition. This work was done after consulting Mr. Mallory and I closed the contract personally for it. It is only a slight increase over what we pay our regular craftsman, and of course, for this work

J. F. R.

- 2 -

July 22, 1904

we have to have a clean, neat job and consequently paid a good price for it.

I would like to call your attention to the fact that among the letters which were sent to this office on the 20th inst. were a great many dating back as far as July 3th. Some of these letters were very important and in some cases a second letter had been written requesting that a reply be sent to the first letter. It would appear whoever is in charge of the mail at Orange should be requested to forward this matter to us without delay in future.

Very truly yours,

W. L. L. L.

AHW/L

~~Edison~~ Whiting - See Aylsworth
about this & decide what
to do - Edison 28 301

Mr. Wm. H. Mallory

Dear Sir,

We have
received from your Gen. Ridge works
order for 1 car of Electrolytic Caustic,
which we will deliver promptly, but
would ask you to kindly send
us order to cover from Feb 6 months
consumption, so that we may
be able to take good care of you

Respectfully

American Salt Supply Co.
John C. Lowell

Phoned
Whiting
7/26/01

Aug 3-1904

Ward ~~Ward~~ Electric Co
Bronxville ny

Why dont you ship resistance
boxes ordered answered

Edison

E. B. Co.

112 111
112 111
112 111
112 111
112 111

THOMAS A. EDISON,
PRESIDENT.

W. S. MALLORY,
VICE-PRESIDENT.

J. F. RANDOLPH,
SECRETARY-TREASURER.

EDISON STORAGE BATTERY CO.,

GENERAL OFFICE:
EDISON LABORATORY.
ORANGE, N. J.

"TELEPHONE," "311 ORANGE."

WORKS:
GLEN RIDGE, N. J.
SILVER LAKE, N. J.
REYNOLD JANNNEY, MANAGER.
TELEPHONE, "TO BLOOMFIELD."

GLEN RIDGE, N. J..

Sept. 21, 1904

Alexander Elliott, Esq.,

Orange, N. J.

Dear Sir:

I attended the meeting of the creditors of the Gibbs Co. yesterday at the office of Mr. McDougal Hawkes, and as the appraisers have not yet completed their work, there was practically nothing done, as Mr. Hawkes stated that it would be necessary to have their figures before us before any definite steps could be taken towards clearing out the business. It seemed, however, to be the general opinion that it would not pay us to continue the business or to complete any of the vehicles now in construction. As the meeting was considered very informal, no decided action was taken in this matter, nor in fact on any other points of interest. The General Electric Co. is investigating at the present time, the contract with the Borax Company with a view to forcing them into a compromise on their contract as they believe that the Borax Co. can be held liable for this contract, and that we may, therefore, get some small return for allowing them to break the contract.

In regard to the ^Atrator train, it was the universal opinion of those present that this proposition was too much of an experiment to warrant the investment of further capital toward perfecting this train, as the chances are that even were the train completed, it would require a considerable amount of capital to do the necessary amount

THOMAS A. EDISON
PRESIDENT

W. S. MALLORY
VICE-PRESIDENT

J. F. RANDOLPH
SECRETARY-TREASURER

EDISON STORAGE BATTERY CO.,

GENERAL OFFICE:
EDISON LABORATORY
ORANGE, N.J.

"TELEPHONE," 311 ORANGE.

WORKS:
GLEN RIDGE, N.J.
SILVER LAKE, N.J.
REYNOLD JANNEX, MANAGER
TELEPHONE, "70 BLOOMFIELD"

A.E., Esq., #2

GLEN RIDGE, N.J.

Sept. 21, 1904

of experimenting to make the train practicable.

Mr. Shadbolt is going to take up the matter of having the Vehicle Equipment Co., of Brooklyn, N.Y., finish up the 2 Brewery trucks now on hand, with a view to disposing of them. Neither Mr. Dean nor Mr. Gibbs presented any figures as we had expected, showing the amount of money necessary to complete the various machines in process of construction, and for this reason, it was deemed advisable to get figures from the Vehicle Equipment Co. on this work.

At the last moment Mr. Tuft of the Studebaker Co. said he would take up the matter of buying out the Company, with his home concern, that is, the Studebaker Bros., of South Bend, Ind. He stated that there was a bare chance of their being willing to do something along these lines, and would report to the committee as soon as he could obtain a statement of the inventory, etc., and forward the same to South Bend.

The meeting was adjourned to meet at the same place at 3 o'clock next Monday afternoon, and I trust you will be able to be present.

Very truly yours,

AHW/L

A. H. Whitney

- This letter sent to Vehicle Equip. Co., Pope Co., Studebaker Co.,
National Co., Woods Co., Baker Co. + *Smiley B*

Oct. 20, 1904

Baker Motor Vehicle Co.,
Cleveland,

O.

Gentlemen:

We have been manufacturing cells regularly for several weeks with an output of over two hundred cells per day, which we will increase to three hundred and more, as soon as additional machinery, which is now being built, is installed.

All cells now being manufactured are contained in welded cans, all of which are tested by pressure before being shipped, and we believe the trouble from leaky cans has been overcome.

We will soon advertise extensively that our cells are ready for the market and hope to work up quite a demand for them.

While as yet all cells sold at list price represent a loss to us, the cost of manufacture has come down somewhat and in accordance with our past promises, while our selling price will still be list, and our terms net thirty (30) days, we have decided to give you a special discount of five (5) percent for cash, provided same is mailed us within ten days from date of invoice and not otherwise. Later on, when the manufacturing costs come down more, we expect to give you a larger discount. Our price to the public will be list less 2% cash in ten (10)

Baker M.V.Co.,

- 2 -

Oct. 20, 1904

days from date of invoice. we can make deliveries now in from four to six weeks and in special cases might deliver somewhat earlier.

We shall be pleased at any time to help you in any way possible to effect sales of vehicles containing our batteries.

Trusting that we may receive many orders from you, and thanking you for past favors, we are,

Very truly yours,

WSM/L

V.P.

THOMAS A. EDISON
President

W. S. MALLORY
Vice-President

J. F. RANDOLPH
Secretary-Treasurer

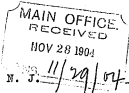
EDISON STORAGE BATTERY CO.

Telephone, 76 Blunfield

GLEN RIDGE, NEW JERSEY

11/26/04/WSMP.

Mr. W. E. Gilmore, Vice Pres.,
Edison Manfg. Co.,
Orange, N. J.



My dear Gilmore:

On December 1st next we will close down the Plant at Silver Lake, keeping on a day and night watchman. Most of the time there will be one or two other men at the Plant.

We would greatly appreciate it if you would arrange so that in case of fire the employees of the Edison Manfg. Co. would assist our men either day or night as the case may be.

If you will arrange to do this for us I think it will save us considerable trouble with the Insurance Companies, from whom we have to get permission to shut down.

Yours very truly,

V.P.

E. F. C. YOUNG, President.

JOHN A. WALKER, Vice Pres. & Treas.

GEO. E. LONG, Secretary.

CABLE ADDRESS: "GRAPHITE"
CODES USED: (A) B. C. F. H.
(B) J. C. F. H.
LONG DISTANCE TELEPHONE: 2000, JERSEY CITY.



WORKS AND GENERAL OFFICES: JERSEY CITY, U. S. A.
BRANCHES:
60 BEAUX ST. NEW YORK 100 124 PARKET ST. SAN FRANCISCO
1020 ARCH ST. PHILADELPHIA 401 TREMONT ST. BOSTON
ROBINSON BLVD. CHICAGO 7 PARKER BLVD. PITTSBURGH
26 VICTORIA ST. LONDON, S. W.



JOSEPH DIXON CRUCIBLE CO.
MINERS,
IMPORTERS AND
MANUFACTURERS
OF
**GRAPHITE,
PLUMBAGO, BLACK LEAD,**
Pencils, Crucibles, Stove Polish, Lubricants,
Paints and Graphite Products of all kinds.

Eaton Storage Battery Co.,
Glen Ridge, N. J.

Gentlemen: Answering yours of Dec. 13, we petition for a change of view on your part. Perhaps you are not quite aware what we did when we made your contract. You applied to us definitely for this graphite, mentioning that you would be pleased to have business with us. We then sent our representative to your office, and it was talked out. You were to make a contract which we have in hand, for 36,000 lbs., which you duly signed and sealed, being 3,000 lbs. per month. On the basis of this 36,000 lbs. contract, we made the price to you 10¢, whereas the usual price is 12¢. In other words, we took what was equivalent to nearly 20% off. Then the terms were that we should be paid once a month. We hope you can send us check by return mail.

We do not wish to be arbitrary, or what might be called unaccommodating, but we need our money badly, and expected to have it come in this way, after we made so low a price, and then the goods you know, have not been called for as per contract. We shipped you a bill in October, and there should have been another order in November and one in December, but we have only shipped one so far. In view of this, we think you will send check by return mail.

PLEASE.
Mark Reply to this Letter
Department A.

Yours respectfully,

Joseph Dixon Crucible Co.,

Jersey City, N. J. (USA) Dec. 14, 1904
Oct 3 20 00
100

Goodland

Follow up and see that ~~John~~
You get porcelain wheels delivered
for new strip placers be done
next Thursday. They were
ordered long ago. Elison

Form No. 1.

THE WESTERN UNION TELEGRAPH COMPANY.**24,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD.**

This Company TRANSMITS and DELIVERS messages only on conditions limiting liability, which have been assumed to by the sender of the following message. Sender can be held liable against only for repeating a message back to the sending station for completion, and the Company will not hold itself liable for errors or delays in transmission or delivery of the message and its receipt, beyond the amount of rate paid thereon, nor in any case where the said conditions are violated by the sender. This is an UNREPEATED MESSAGE, and is delivered by request of the sender, under the conditions named above.

ROBERT C. CLOWRY, President and General Manager.

NUMBER	DATE	TO	FROM	CHECK
26	NY	Edison	25 Collect	

RECEIVED at NEW YORK, N.Y. 190

Dated Fort Meyers Fla 4

To John Randolph

Edison Laboratory - Orange
 I want How is Battery Building
 Progressing first section Two hundred West
 four batteries done when I left
 how much more have they done
 Edison

Battery - Jm

TELEPHONE N.Y. 2812-3875 ST.

TELEPHONE CHICAGO, 1400 HARRISON.

Answered
May 23/05
J. Wesley Allison
Edison Storage Battery Co.
Orange, N. J.

J. Wesley Allison,
Vanderbilt Ave. #44th St. New York
325 Rockery, Chicago

New York, May 9th, 1905. 190

~~Dear Sir,~~

Don't think there will be any trouble

J. F. Randolph, Esq.,
Edison Storage Battery Co.,
Orange, N. J.

My dear Mr. Randolph:

*Made me still working OK
& simply stopped until I called*
Your favor of the 2nd instant was the
first intimation I had that there was any trouble with the
battery. Is it going to effect the bondholders in any way,
as a number have purchased the bonds solely on my recommendation
and I would appreciate it very much if I could be kept advised
of the developments of the Company from time to time.

Thanking you in advance and with very kind regards,

I remain,

Yours faithfully,

J. Wesley Allison

Σ 313 Co.

THOMAS A. EDISON
President

W. S. MALLORY
Vice-President

J. F. RANDOLPH
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

EDISON LABORATORY

Telephone, "407 Orange"

ORANGE, NEW JERSEY May 18, 1905.

Messrs. W. G. Bee- A. E. Pratt- P. Weber:

So that there will be no further misunderstandings, it is my desire that no further orders for materials or labor of any kind be issued except same are approved by Mr. Edison, Mr. Weber or myself. Of course, when it comes to productive material, Mr. Weber can pass on this, but I want no supplies or any purchases made unless either one of us approve same. In other words, I want to keep all expenses down to a minimum.

W. S. Mallory

(Copy to Mr. Edison)

ESB Co.

COCHRANE CHEMICAL CO.

MANUFACTURERS AND IMPORTERS OF CHEMICALS,

Office, 55 Kilby Street, Boston.

ALEXANDER COCHRANE,
PRESIDENT.
LINDSEY LORING,
TREASURER.

BOSTON, December 26th, 1905.

DEC 28 1905

The Edison Chemical Co.,
Orange, N.J.

Gentlemen:-

We are in receipt of yours of December 23rd in relation
to 20° Hydrochloric Acid.

We should like to ask if this Muriatic Acid is to be used
in this vicinity or if it will have to bear a long transportation, as
this would have some bearing on the price.

Kindly inform us on this subject and greatly oblige.

Yours truly,

COCHRANE CHEMICAL CO.

By *W. J. Wether*

D/WJW

The acid is to be used at the works
at Orange N.J. - when our plant
is complete we shall use about
3 tons of 20 degree Hydrochloric
daily
Edison Chem Wks

ESB.C.

P. H. KLEIN JR.
187 CEDAR STREET
NEW YORK

DEC 28 AM '05

Dec 27/05

Edison Storage Battery Co.
Orange N.Y.

As per A week ago I sent you a letter dated
Dec 19th which I had just received from the
Stanley Works, referring to their having ship-
ped you steel which they had made on
my order for Berlin and asked you to
return it after reading & advise me about
the transaction.

Please let me hear from you rather
matter at your early convenience and
very much oblige

Yours truly
P. H. Klein Jr

I have referred the letter to battery
works with instructions to explain
the matter to you = my impression
is they stole the stock for the works
to take care of Customers. The man
who was up there told me Stanley
Co would have new stock ready in 10
days, this was a week ago

E & S Co.

ROBERT H. REMMEY, President

MANUFACTURERS
CHEMICAL STONWARE
CHEMICAL BRICKS
CHEMICAL TILES
WHITE GLAZED STONWARE
FIRE BRICKS
FIRE BRICK TILES
FIRE CLAY
GROUND BRICK
FIRE SAND
BY THE TON OR CARGO

JOHN D. REMMEY, Secretary and Treasurer

HENRY H. REMMEY, Superintendant

ITAL. POWER WORKS, 25-26
REARVIEW PLAZA, NEW YORK

RICHARD C. REMMEY SONS' CO.

2637-59 E. CUMBERLAND STREET

PHILADELPHIA December 28, 1905.

All Agreements
are contingent upon written, authentic,
delays of carriers, and other causes
beyond our control.

DEC 29 1905

Edison Chemical Works,
Orange, N. J.

Gentlemen:--

In reply to your letter of the 27th inst., beg to state, we can furnish the pottery parts for muriatic plant as shown in our illustrated catalogue. The retorts we do not furnish. These are generally built by the acid people themselves, being the most economical way in erecting plant of this kind.

Dio., E. E. E.

Yours very truly,

RICHARD C. REMMEY SONS' COMPANY,

Robert H. Remmey
PRES. & GEN. MGR.
E. & S.

Can you give me the address of
Chemical Engineer who makes a
business of superintending erection
of hydrochloric acid plants

Edison

Feb 13 - 1906

Telegram

Express Agent
Cartersville Georgia

~~John Morris~~ Anything
shipped by John Morris
will be paid at this end.
Thos A Edison

Chy ~~Edison~~

John note about check
also address —

THOMAS A. EDISON
President

W. S. MALLORY
Vice-President

J. F. RANDOLPH
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

Telephone, 1096 Main Street

GLEN RIDGE, NEW JERSEY Feb'y. 15, 1906.

Mr. Thos. A. Edison,

Orange, N. J.

Dear Sir:-

for Nickel Corrugating only

In reference to pressure on small press at Laboratory would say that the diameter of ram is 2.733".

$2.733 \times 2.733 \times .7854$ equals 5.866 sq. inches of ram.

250 atmospheres $\times 15$ lbs. per sq. inch $\times 5.866$ equals 21998 pounds per pocket, or 11 tons per pocket, which equals 264 tons per plate of 24 pockets.

To get a pressure of 264 tons per plate on our hydraulics, ^{us} it would be necessary for/to get a press with a larger ram. We could then use our present pumps and piping and valves. The cost of such a press without accessories would be about \$400.00.

Very truly yours

W. S. Mallory

H.M. Wilson

Mar 30. 1906

Latchford, Ontario Canada

I will be home on the 8th
April. You better go to Balm.
and meet me at Laboratory any day
after the 8th when we will decide
about the Boiler ~~to~~.

Edison

NEW YORK

CHICAGO

MONTREAL

TORONTO

APR 12 AMT

Cable Address:
Waltson

J. Wesley Allison
Morrisburg, Ontario, Canada

Morrisburg, Ont., March 31st. 1905.

J. P. Randolph, Esq..

Treasurer, Edison Storage Battery Co. ~~etc~~ when
this summer,

we hope to make some money

Dear Mr. Randolph:-

How is the Battery Co. getting along? Is
consistent and not giving you too much trouble, I would be pleased
if you will give me some information as to the progress you are
making.

Thanking you in advance and with very kind
regards,

I am,

Faithfully yours,

J. Wesley Allison

Apr 26. 1906
Telegram —

John Morris

Buena Vista

New

~~Webster~~ ~~MA~~

~~Dillabore~~

~~MA~~

Go to Raleigh North Carolina

See Boyden — some of roads
recovered from Wake County

Very good, better prospect

~~than~~ than for a while

perhaps you can get Carload

wanted from there

Bellevue from the man

answer where shall we send money

Edison

Call Edison "Edison, N.Y. 10/06"

*From the Laboratory
of
Thomas A Edison.*

Subject, _____

Orange, N.Y. May 10/06

Telegram —

G A Longnecker

*Mechanicsburg, Lancaster Co.
Penna*

✓ Telegram

*Will pay twenty five per
week and expenses*

Edison

E. S. B. Co.

Mechanicburg Pa May 11-1906

Thos A. Edison
Orange N.J.

Accept offer and wait your
instructions

H. G. Longmeyer

Complete by Monday
Edison

Telegram

E. B. L.

Build Gaboth Pond
at Green Lake
Lot No 1829
Orange County Co 1/012668
May 16/06 J. F. OIT.

TELEPHONES 9375 AND 5576 CORTLANDT.

THE NEUCHATEL ASPHALTE CO. L^TD.

265 BROADWAY, NEW YORK.

Concrete Foundations,
Sidewalks, Driveways, and
Reinforced Concrete Construction.

Waterproofing

SOLE CONCESSIONAIRES OF THE
VAL DE TRAVERS ASPHALTE MINES,
SWITZERLAND.

Asphalt Floors
for Broomrooms, Lavatories,
Stables, Breweries, Stores, Mills etc.

Tile and Asphalt Roofs.

August 27th, 1906.

Emil Herter, Esq.,

Edison Storage Battery Company,

Orange, New Jersey.

Dear Sir:-

Referring to the matter of the asphalt wearing surface to be laid on the new floor of the battery room at the above plant and as promised we now take pleasure in advising you that the quantity of sand required will be fifty (50) cubic yards.

We find we can use the fine sand from your pit and obtain good results but should prefer to use some coarser sand with the fine if there is any of the latter to be had. If so we shall be glad if you will arrange to have carted to the building where the asphalt is to be laid 35 yards of fine sand and 25 yards of coarse sand.

As this will have to be screened we have allowed sufficient to cover waste in the above quantities.

Our requirements in the way of wood to heat the asphalt will be about from 12 to 15 cords and if you can supply us with this quantity at a moderate price from the waste lumber left from the concrete, ^{wood can} shall be glad if you will do so.

Thanking you in advance for your kind attention to the matter of the above supplies, we beg to remain,

Yours very truly,

THE NEUCHATEL ASPHALTE CO. L^TD.,

per

W. B. Rutledge Esq.

TELEPHONES 8078 AND 8078 CORTLANDT.

THE NEUCHATEL ASPHALTE CO. L^TD.
265 BROADWAY, NEW YORK.

Concrete Foundations,
Silevelts, Driveways, and
Reinforced Concrete Construction.

Waterproofing.

SOLE CONCESSIONAIRES OF THE
VAL DE TRAVERS ASPHALTE MINES,
SWITZERLAND.

Asphalt Floors
for Basements, Laundries,
Stables, Breweries, Stores, Mills etc.

Tile and Asphalt Roads.

August 30th, 1906.

Emil Herter, Esq.,

Edison Storage Battery Co.,

Orange, N. J.

Dear Sir:-

We are in receipt of your favor of the 29th inst. and thank you for your assistance in arranging for the carting of sand to the building where the asphalt floor is to be laid and also for the information concerning the wood to be used for fuel.

We are also in receipt of an official order #13227 for the execution of the asphalt work but note that no reference is made thereon to the lining of the gutters which we charge for by the lineal foot at a higher rate than for the floor surface, as the work takes much longer to do and is much more costly.

A reference to our bill for the similar work executed at your works at Silver Lake, will show that the cost of the asphalt floor laid there was 15¢ per square foot and 35¢ per lineal foot for the gutter. In order to avoid any misunderstanding we shall be glad if you will kindly forward us a supplemental order for the gutter work or if you prefer we will return the order received for correction.

Yours very truly,

THE NEUCHATEL ASPHALTE CO. L^TD.,

per

[Handwritten Signature]
Manager.

R.B./H.M.

GEORGE MERCK

MERCK & CO.
MANUFACTURING CHEMISTS
NEW YORK,

October 1/06

WORKS,
ST. LOUIS
and
RAHWAY, N. J.

G/EF/
f

DUY

E. MERCK'S
DARMSTADT
LABORATORIES
Founded 1668

The Edison Storage Battery Co.,

Glen Ridge,

N. J.

Gentlemen:-

Referring to your order of the 26th ultimo,
we regret that we were unable to include

3 ozs. POTASSIUM PHOSPHATE, in ozs.

3 ozs. ACETAMIDE, in bulk - *we get this from*

15 gms. POTASSIUM TELLURATE, 1 vial *Emery's Animal*

as we do not carry any of these articles in stock. Our Labora-
tories manufacture all of the products and we should be glad to
import them for you. Kindly advise us whether you wish us to
do so.

Awaiting your further advices, we are,

Yours truly,

Attested: *mm*

MERCK & CO.

J
Es Merck -

*In nearly every case when you do not
have the Chemical required we
can get it from Emery's Animal - these
articles were wanted in your Catalogue
by a red line as being in stock -*
2

GEORGE MERCK

MERCK & CO.
MANUFACTURING CHEMISTS

NEW YORK,

October 8/06

WORKS,
ST. LOUIS
and
RAHWAY, N.J.

G/EF/

E. MERCK'S
DARMSTADT
LABORATORIES
Founded 1668

The Edison Storage Battery Co.,
Orange,

N.J.

Gentlemen:-

We duly received your favor of the 2nd instant regarding the POTASSIUM PHOSPHITE, POTASSIUM TELLURATE and ACETAMIDE omitted from your recent order, and are at a loss to understand your statement that the articles mentioned are marked with a red line in our catalogue as being in stock, as we have no record of ever having issued a catalogue marked in such a manner.

Referring to your remarks that you can in nearly every case procure from Eimer & Amend goods omitted by us, we would state that we have communicated with this firm in the present instance and they inform us that they do not carry in stock Potassium Phosphite or Potassium Tellurate. They can, however, furnish from stock 3 x 1 oz. Acetamide and we should be glad to procure and forward this, if you wish us to do so.

Assuring you of our appreciation of your orders and of our willingness to procure any items that we do not handle when we can possibly do so, we are,

Yours truly,

Attested: *P*

MERCK & CO.

ES & Co.

OFFICE OF
JOSEPH BROOME
CONSULTING CHEMICAL ENGINEER.
N. Y. OFFICE 125 LIBERTY STREET.
NEW YORK CITY.
NEW YORK, N. Y.
JULY 25, 1905.

Thomas A. Edison, Esq;
Orange, N. J.
My dear Sir;

Referring to your esteemed favor under date of Aug 30th, in matter of proposed Hydrochloric plant, the writer would esteem it a favor to have you advise him when he may expect to have you call upon him, as arranged with you on July the 12th;

Awaiting your esteemed reply;

Yours with respect;

AS-B

REGISTERED ARCHITECT, STATE OF N. J.
QUALIFIED TEACHER OF BUILDING CONSTRUCTION SCIENCE
AND ART DEPARTMENT ENGLISH GOVERNMENT.
F. S. A. Eng. MEMBER S. C. I.
BROOME O. V. CONCENTRATORS.
" COMBINATION FRUITES AND SULPHUR BURNERS.
" EXHAUST SYSTEM FOR O. V. WORKS.
" LEAD ACID ENDS.
" PATENTED CHIMNEY CONSTRUCTION 795,332,
JULY 25, 1905.

October 27th; 1906;

I am not ready to
acknowledge yet
E

ASST-3, 1904-05

THOMAS A. EDISON,
President.

W. B. MALLORY,
Vice-President.

J. W. RANDOLPH,
Secretary-Treasurer.

NEW JERSEY AND PENNSYLVANIA CONCENTRATING WORKS.

GENERAL OFFICES:
EDISON LABORATORY,
ORANGE, N. J.

ORANGE TELEPHONE,
EDISON "

"311 ORANGE,"
"5 H DOWNS."

WORKS:
EDISON, SUSSEX COUNTY, N. J.
ON HIGH BRIDGE BRANCH, C. & N. H. OF N. J.
22 Miles from Newark City, N. J.

EDISON, N. J.

~~Orange, N. J.~~

O. W. MILLER,
MANAGER.

November 12th, 1906.

Edison Storage Battery Co,
Silver Lake, N. J.

Gentlemen:-

Will we ship the fire brick belonging to the B & W boilers?
Expect car for second carload to day.

Yours very truly,

O. W. Miller
.....Manager.

P. S. Quite a number of the bricks are broken in taking down the
boilers, if you will give the number you require we will be able
supply them from other buildings.

(1906)

Hester =

find out from
man how they're
furnishing for the connecting
pipes for W. seating

Furnish up the furnaces hydrogen tubes
+ details - also the Rolls with details
so we can order one made, also get
plans out for the general lay out of the
Rolling Mill with the several rolls.

also details of Reels - benches
etc = WE will grind the rolls up in the
tool room as they are not heavy & don't
need grinding often -

Also lay out the Hydrogen generating
plant about $\frac{1}{2}$ size of that at Silver
Lake - The gasometer to be $\frac{1}{2}$ size. Their
Capacity = get bids for erecting the
same from the same man who built
the one at Silver Lake -

I think the Hydrogen plant should be
out of wood & not cement on account
of acids & Explosion —

Lay out the piping from the hydrogen
plant to the Welding bldg also to the
main bldg leading to the Rolling mill
& flake furnace —

Anything Mason wants as to Brute Ralls
do — Watch the Brute ralls & see
Everything is made ok — you should
inspect the work down stairs on
them —

Report to me anything you want to
know to Florida up to March 27th =
after which mail will be too late,
Have Burroughs keep at the Battery
work — Casey will arrange some work
on Crane & painting drums & tanks ~~from~~
therefore you should with the aid of the other
drummen take up the Rolling mill & furnace
=

[ATTACHMENT]

- 1 = Get catalogues & prices of tube mills complete,
- 2 = Order the Crusher from Sturtevant,
- 3 = Order the screw Conveyors - use the Judgers & hangers for same as used at Cement works -
4. Order the Wilfey Table & Shimmer -
- 5 = Order the Elevator chain buckets etc
try & show -
- 6 = Get out working drawings for the Roasting furnace & all appurtenances
- 7 ~~Order~~ Get bids for motors from General Electric & Crocker Wheeler - Buellock - ~~Shaw~~

ESBC

WILLIAM WILKE,
MECHANICAL, CIVIL AND CHEMICAL
ENGINEER,
86 NORWOOD AVENUE.

*Answered
April 27 1907*

AGENT FOR
VEREIN CHEMISCHER FABRIKEN
IN MANNHEIM, GERMANY.
FOR THEIR PAT.
SULPHURIC AMMONIUM (CONTACT) PROCESS
MECHANICAL SULPHATE PURNACE.

AGENT FOR
CHEMISCHE FABRIK RHENANIA
IN AACHEN, GERMANY,
FOR THEIR PAT.
DR. UEBELS' PROCESS FOR MAKING
NITRIC ACID

BUFFALO, N. Y. April 6th 1907

*Answered
April 27 1907*

Mr. Thos. A. Edison,
Orange, N.J.

Dear Sir:-

About a year ago I saw you in reference to a MURIATIC-ACID
Plant.

I should like to know whether you are still interested in
the project, if so, I shall be pleased to call upon you and submit
to you different propositions with figures all complete.

Yours respectfully,

Wm Wilke

*Decided not to erect the
Hydrochloric acid plant*

ESBG..

F. A. COFFIN,
34 PINE STREET,
NEW YORK.

*Purchased this
Stock at \$21,250.00*

NEW YORK, April 27th, 1907.

Mr. Thomas A. Edison,
Orange,
New Jersey.

Dear Sir:-

Referring to my letter to you of the 5th inst. and to
your reply of the 26th:

I beg to confirm the sale to you of \$25,000 par value
Edison Storage Battery Co., First Mortgage 6% bonds, for the sum
of \$21,250.00.

As these bonds will be ready for delivery on Monday,
I beg to confirm, also, my telephone message to Mr. Randolph,
asking you to kindly instruct me, by telephone, on Monday morning,
as to the address in New York at which you wish the bonds delivered.

Thanking you for the order, I am,

Very truly yours,



Tel. 6100 John.

*2500
1250
2000
21250*

ESB Co.

F. A. COFFIN,
34 PINE STREET,
NEW YORK.

*Answered
May 23-1907*

*Answered
May 23-1907*

NEW YORK, May 21st, 1907.

Mr. Thomas A. Edison,
Orange,

N. J.

My dear Mr. Edison:-

Another of my clients has just informed me that he holds \$25,000 of Edison Storage Battery Co. 6% bonds, which he is disposed to sell.

His idea of price is \$900 per bond, but if you will make me a bid for them, I shall take great pleasure in doing the best I can to meet your views.

Yours very truly,

J. H. Coffin
I see reply to your favor of the 21st inst.
beg to advise that
My Secretary Mr Randolph has been
trading in these bonds and
have referred your letter to him
7 c 2

B. 57.
ES BC
Spoke & Bonds.



American Surety Company

H. D. Lyman
President

New York

100 Broadway,

New York

August 17, 1908

Official letters should be addressed
to the Company and Department
and in reply should be given
Please give my initials
or name as given

H D L

PERSONAL.

My dear Mr. Edison:

For some little time I have been in possession of five shares of the stock of the Edison Storage Battery Company, through a deal with our mutual friend, Charles W. Price.

I do not know whether you are purchasing the stock now, but I thought it best to tender these five shares to you, rather than to any one else, and would inquire whether you ~~would~~ will pay par for them?

With personal regards, I am

Yours sincerely,

To
Thomas A. Edison, Esq.,
Orange, N.J.

Say
Would like to buy best Cornwal just now -
You better had them as we are nearly
ready to bring out the new type
battery
Edison

CS 13 C

Slowing to Stop
AV

Say that I shall do all I can to lessen
the noise = am closing the windows next to street
I am trying Experiment with the machines
themselves to see if cannot lessen noise
West Orange, N.J.

Thos. A. Edison, Esq. from each = As noise is July 19th, 1909.
Llewellyn Park, Covered through the air think we
West Orange, N.J., will be able to see it very
My Dear Mr. Edison: much —

into closed
windows
at night

I have been advised by one of your head men
to see you personally about a matter of vital interest to all
real estate owners and tenants in the vicinity of the storage
battery factory, but to take as little of your time as possible;
I am sending this letter instead.

My brother and I either own or have liens
on property within a block of it, worth over \$80,000.00 and the
owners of other property in the vicinity have asked me, as the one
with the largest interests, to speak for them also, which I wish to
do, knowing that your own sense of fairness will lead you to do
the right thing.

For about six weeks the battery works have
been in operation night and day, and although in the day time the
noise of the tumbling or grinding machinery is not particularly
noticeable or objectionable, as it mingles with other sounds, at
night it is singularly annoying and nerve racking, so much so that
one of our tenants has left the vicinity, another has announced
his intention to leave October 1st, when his lease expires and
another says he simply cannot stand it, lease or no lease.

Mr. Willson

2 .

You can readily see that this state of affairs will empty all rented premises, and keep new tenants from re-renting, and ruin the neighborhood.

I would like to be able to assure them on your authority, that the night work is only temporary, or else that you will try to see that some way is devised to eliminate the trouble, which I am sure you can bring about if you realize what a serious matter it is for everybody within earshot.

Trusting that you will take it up, and favor me with a reply, I remain,

Yours very truly,

C. R. Browning

B.A.R.

E 3 B C

H. McK. Twombly,

Mills Building,

New York, March 3rd, 1910.

Ans 3/11/10

Mr. Thomas A. Edison,
Orange, N. J.

Dear Sir:-

For the purpose of reporting to the State Controller the value of the property left by the late Mr. H. McK. Twombly and of paying the inheritance tax thereon, will you kindly let me know the values on January 11th, the day of Mr. Twombly's death, as nearly as can be determined, of the following securities:

Edison Storage Battery Co. 6% bonds, of which 100 are held.
" " " stock, of which 625 shares are held.
" Ore Milling Syndicate, of which 25 shares are held.
North American Transportation & Trading Co., of which 525 shares are held.

Your kind compliance with the above request will oblige

Yours truly,

Florence A. V. Twombly, Executrix.

Per

*Any bonds worth about \$5000 for the
\$50000 - stock no more for the
its value is prospective to the
Co has just started business
Ore Milling Syndicate was
not sustained many years
ago - Don't know of it
Co - Edison*

ES 860

Ans^d 27/1/1910

A. I. CLYMER
VAN WEST, CHIEF

May 23, 1910

Mr. Thomas A. Edison,

Menlo Park, N. J.

Dear sir :

MAY 26 1910

May I beg to ask if you will kindly care to include my subscription for a small number of common shares in your new storage-battery company ? I am excusable for feeling complete confidence in every product of your genius. No doubt rests in my mind that you have brought the Edison battery to final perfection and that it will come into world-wide use.

I presume the shares not retained by you will not be offered for general public subscription but will be absorbed by the big men who are fortunate enough to be included among your personal friends. Will you not consent to take me in with you, Mr. Edison, say for one hundred shares common ? It is farthest from my thought to ask you with importunities.

Perhaps you will kindly allow your secretary to inform me as to the name and location of the new company; the number and classes of shares; per value and subscription price:

Mr. Edison, I have felt hope--and without reason, I confess--that you would gratify my wish, and it is needless to say that I await your kindly reply with the most anxious interest. Wont you please do this for me ?

I am

Most respectfully yours,

A. I. Clymer

*Don't let these shares
go. I will have
one.*

ESBG-equip

OFFICE OF
NORTH AMERICAN RUBBER COMPANY
WASHED CRUDE RUBBER
78 MILK STREET, BOSTON, MASS.

JUN 13 1910

June 10, 1910

Mr. Thos. A. Edison,
Orange, N. J.

Dear Mr. Edison:—

As requested by you, the other day, during our interview regarding storage batteries, I am sending by same mail, samples of our rubber product known as North American Rubber, which we are manufacturing in Boston, and in which you seemed much interested.

These samples were made by the Boston Belting Company, one of our largest manufacturers here in that line, who have been using this rubber for over six months, and find it as satisfactory to them in every way, including wear, tensile strength, elasticity, etc. as the crude rubber they have been purchasing in the years past.

North American rubber is a chemical production in which there is nothing that ever came from a rubber tree, nor is it made from the Guayule shrub, and contains no reclaimed rubber.

We expect to have our new five ton a day plant going before the close of this year, and will be able before the first of July to turn out a ton a day.

These samples are only a few of the very many articles that the Boston Belting Co. are manufacturing out of this artificial rubber, which has stood every test and is pronounced by them equal to any goods they have made out of the crude rubber that comes from the rubber trees. Will you kindly let me know if these samples arrive safely.

I will appreciate it if you will have your representative here send in, for a few days, one of the cells for your storage battery, which I am examining in comparison with other batteries, as I talked with you about.

Yours very truly,

R/T

Arthur C. Rogers

CSBC - Bonds
WILLIAM H. SHELDERINE,
421 CHESTNUT STREET.

Aug 7/23/10

Pilling Cant come says my ^{brother}
will have his proxy. you better
see Pilling - & decide which
is more agreeable to you that
I have ^{been} ^{long} ⁱⁿ ^{the} ^{company} ^{for} ^{my} ^{indebtedness} ^{to} ^{you} ^{long} ^{ago}
turn ^{into} ^{stock} ^{or} ^{part} ^{of} ^{your} ^{interest} ⁱⁿ ^{the} ^{company} ^{as} ^{to} ^{your} ^{preference}
meeting of the stockholders to be held on
the 27th instant, ^{at} ^{the} ^{hand}.

While I hope to be present at the meeting
in the event of my not being able to do
so I will much appreciate it if you
will inform me of the plan con-
sidered to be submitted for the accom-
plishment of the object to which you
refer.

Yours truly,
W. H. Shelderine

ES 136 - Bond Meeting

NEW YORK OFFICE, EMPIRE BUILDING
PILLING & CRANE
IRON, STEEL, ORES, COAL, COKE
REAL ESTATE TRUST BUILDING
BROAD & CHESTNUT STREETS
PHILADELPHIA

Pilling & Crane Am 7/23/10

The meeting is to put my understanding
into some form, either long notes or
July 28, 1910.

Stock - We are getting our sales dept
pretty well organized. We have
about 65000 worth of
Edison Storage Battery Co.,
Orange, New Jersey.

Mr. H. F. Miller, Secretary,
Edison Storage Battery Co.,
Orange, New Jersey.
Dear Sir : business on order, sales about
12 to 1500, daily have \$80000

We have your favor of the 21st instant
with calls on hand, think that
notifying us of a meeting of stockholders to be held at
your works on Wednesday of next week.
in short time our sales will
reach 2500 to 3000 daily -

We regret that we shall not be able to be
present. Mr. Crane has gone to Europe, and the writer
will also a big business as only 2
is Secretary of the Eastern Pig Iron Association, which
will hold its next meeting on Wednesday, July 27th, at
Port Henry, N. Y., and it is too late now to cancel his
engagement to be present. As Mr. Brown is interested as
a stockholder and will probably be present, we have asked
him to represent us at the meeting. We very much regret
that we cannot be there ourselves.
all will be best to use them
Now can always keep you
any information you want
Will you kindly advise us in the meantime
at any time
what is the present condition of the company; and if you
have outlined a plan, we should like to know what you
propose to present at the meeting.

I asked Mr. Shubert some time ago which
we have sent Mr. Brown our proxies for the
he would prefer that I take long term
Firm and for the writer. In the absence of Mr. and Mrs.
notes or check out for money advanced
Crane, their proxies of course cannot be forwarded.
he said he prefers I take stock, please
them and returned to you in time for the meeting.
are here to tell Mr. Brown where you
W.S.P. Yours very truly.

prefer, I would also either to send, Pilling & Crane

WILLIAM H. SHELMEKDINE,
421 CHESTNUT STREET.

Having kept it at
PHILADELPHIA, July 25th, 1910. 100

recd
JUL 26 1910

Mr. Thomas A. Edison,
Orange, N. J.

My dear Mr. Edison:

Your favor of the 23rd instant is
at hand.

In view of the meeting of the
Directors of the Cement Company called for
the 28th instant, the day following the meet-
ing of the Battery Company and my inability
to be away from here on both days, I shall
not come over until Thursday.

I return herein the proxy executed
by me and would say that I favor the issue
of Stock instead of Notes in liquidation of
the indebtedness of the Company to you.

Hoping you are enjoying good health
during this excessive heat, I remain,

Yours sincerely,

W. H. Sheldine

ESRC - P. 100-100
NEW YORK OFFICE, EMPEROR BUILDING
PILLING & CRANE
IRON, STEEL, ORES, COAL, COKE
REAL ESTATE TRUST BUILDING
BROAD & CHESTNUT STREETS
PHILADELPHIA

July 26, 1910.

Mr. Thomas A. Edison,
Orange, New Jersey.

JUL 27 1910

Dear Mr. Edison :

We have your letter in reference to Storage Battery matters and thank you very much for the information in reference to the battery. We very rarely see Jack Ross; and have never felt quite free in asking him many questions in regard to the battery, not knowing how much liberty you gave your employees in regard to imparting information. We are glad to know that you are progressing favorably, and hope that the business will steadily improve.

In regard to the indebtedness to you, we beg to say that we should prefer to have the Company settle with you by the issue of stock at par, as you suggest. This would enable the Company to become a dividend payer much sooner than if the profits had to be accumulated in order to pay off notes.

Mr. Brown informs us that he expects to be present at your meeting, and has kindly agreed to represent us.

With best wishes, we beg to remain

Yours very truly,

Pilling & Crane

W.S.P.

~~I would not you some have but~~
~~as I was~~
~~you are~~
October 22, 1910

October 22, 1910

Only last month have we passed
from losing money to making
a little. It will be some time
more before you begin to know
before we can put ourselves
possible for you to receive as a stockholder
~~as much as the~~
company, and you very kindly replied that the
business was not yet in a position to
be taken. I have this matter named
rapidly and profits will
go into the treasury under
for fifty or one hundred shares of the new
N. Y. funds immediately to the bank named by you.
I hesitate to sell my
to "enjoy" you, high opportunities, Mr. Edison,
stock. ~~There~~
most of the time, and you, in the standard

Very truly yours,

ly yours,
A. L. Clynner

the 28 of Oct

October 28, 1910\

shares of my own stock at ~~par value~~ I paid in
the Cap 1,900.00 cash for which I took stock
at par, any time you come east, come over and

^{see what we are doing.}
Your courteous letter of the 26th instant, ^{Jan 7} in reply to
instant, has been received.

I note your secretary says that it will be some time before the Battery Company can pay dividends, as the business is developing rapidly and all earnings must go into machinery and that for that reason you hesitate to sell stock.

This is the only policy, Mr. Edison, that I could have anticipated you would consider: conservation of working capital, mixed with brains, can be depended upon to bring out the only battery the adequate success to which it is entitled. I surely think that every dollar of earnings should be devoted to the continual enlargement of the business—to more ground, buildings, machinery and every facility for the most extended introduction and application of the battery—with no thought of dividends for a matter of years, if need be. The Edison battery is too big for any but the broadest and most liberal policies.

Mr. Edison, I am a comparatively young man and very far from rich--but there is not one of my carefully considered and pleasantly growing investments that I should not be most happy to

(Mr. Edison, #2)

VAN WERT, OHIO

part with, (if such were necessary,) in exchange for the distinguished privilege and advantage of being identified with you and the battery. This has been my ambition of years, since I first read of your labors along this line, realizing then no less than now, that the perfected storage battery would immortalize you, were all of your other magnificent bequests lost to the world.

Your letter of the 26th instant encourages me to believe that you may care to receive me with you in the Battery Company--for I beg to assure you that the question of early dividends had not for a moment occurred to me--and I most earnestly hope that you will as a mark of your kindness permit me to become a stockholder in your company, say for 50 or 100 shares of \$100 par value, or to whatever extent may be agreeable to you.

Awaiting your reply with the deepest interest.

I remain

Most sincerely yours,

P.O. Box 351

A. I. Clymer

23860-Stock sale

Ans 11/9/10

A. I. CLYMER
VAN WERT, OHIO

November 5, 1910

Mr. Thomas A. Edison,

Orange, N. J.

My dear sir :

Your most kind letter of the 29 inst.--postmarked at
Orange Nov. 3, 7-30 p.m.--reached me to-day. *Carole Keller which*

I cannot find words to express my pleasure at your
having so generously gratified my wish to be identified with you
in the Edison Storage Battery Co. While, in New York, two weeks ago, *to the Edison*
I visited your company's booth at the Madison Square Electrical Show,
and your representative, seeing that I evinced some *to the Edison*
interest, gave me a most illuminating explanation of the battery
which in itself fascinated me. *stating how you have*

I of course made no inquiry of him as to whether, knowing
that he was not there to discuss the company's financial affairs.
But I felt a very strong impulse to go to Orange in the hope of
meeting you and taking just a minute of your time; however, I restrained
myself, feeling that I should be imposing upon gentlemen whose time
is worth very much more than mine. I shall indeed take the pleasure
of visiting the factory when I am again in the East, and hope to thank
you personally for your very especial consideration.

A. I. CLYMER
VAN WERT, OHIO

Mr. Thomas A. Edison, #2

Will you be kind enough, Mr. Edison, to advise me as to
the par value of the stock per share (I presume the shares are of the
usual size of one hundred dollars and that there is one class of stock)
and who the company's transfer agent is or what Orange or New York bank
will deliver the 100-share certificate to me; then I will know where
to remit, and the amount. It will be highly agreeable to me to remit
to you direct, if you prefer; but I have presumed that you do not care
to take the time and trouble to personally see to transfers, etc.
I had thought of sending my remittance to one of your best orange banks,
--when it occurred to me that this might not be agreeable to you.
I shall be ready to remit promptly upon receipt of your advice.

Very sincerely yours,

P.O.Box 351

Arthur I. Clymer

ESBC - stock sale

Ans
Nov. 14 - 1910

A. I. CLYMER
VAN WERT, OHIO

Mr. Thomas A. Edison,
Orange, N. J.
My dear sir :

Your very kind letter of 9th inst. ^{Nov. 9, 1910} has been received and I have advised that you will deliver to Second National Bank of Orange, N. J. a certificate for 100 shares (par value \$100. per share) of the Electric Storage Battery Co., on receipt by them of N. Y. dft. for \$10,000. (N.Y. dft. for \$10,000.) dollars from me, said certificate being issued by me (Arthur I. Clymer).

I have to-day made remittance of \$8200. to my New York bankers, Messrs. Henry Claws & Co., of 17 Broad Street, placing my balance with them at \$10,000. plus, and have also mailed to Second National Bank of Orange my check on Messrs. Claws & Co. for \$10,000. I have requested them to forward certificate to me here by registered mail, and have attached 12¢ stamps to my letter, for that purpose. Mr. Edison

A. I. CLYMER
VAN WERT, OHIO

Mr. Thomas A. Edison, #2

would you care to ask them if they will kindly collect draft and forward certificate without cost to me, in courtesy to you as their patron ? I believe they would do this for you.

Recently noticing that the Electric Storage Battery Co., of Phila., were expecting to bring out an improved battery, I wrote them an ordinary inquiry. You may be interested to read their reply, which please destroy.

Yours most appreciatively,

P.O. Box 351

Arthur I. Clymer

[ENCLOSURE]

"Chloride Accumulator"

"Tender Accumulator"

"Exide Accumulator"

THE ELECTRIC STORAGE BATTERY CO.

GENERAL OFFICES

PHILADELPHIA, PA.

"Exide"
Battery

CLEVELAND OFFICE, CITIZENS BUILDING

Nov. 5, 1910.

Mr. A. I. Clymer,
Van Wert, Ohio.

Dear Sir:-

Your favor of the 2nd inst., addressed to Philadelphia, has been referred to this office for attention.

We have perfected a new vehicle battery which will be far superior to any battery manufactured up to the present time. Its capacity will be about 20% greater than that of the EXIDE, but its life will be from two to three times greater and it will not be necessary to clean it during its life. These latter points are extremely important and, we believe, will make it very popular.

In regard to mileage, it is impossible to make a definite statement in regard to this but with a proper sized battery of this type in the well designed cars of this date, the radius of mileage will be entirely satisfactory to users of electric.

We are at this time not in position to quote prices on the battery as the prices have not been made up.

We hope to be able to begin deliveries of this type

[ENCLOSURE]

Mr. A. I. Clymer,

-2-

11-5-10.

of battery early in 1911. In purchasing your car, it will only be necessary for you to notify the manufacturer that you desire our new type of battery.

Very truly yours,

3-1


MANAGER CLEVELAND OFFICE.

(I told them I expected to buy an electric carriage in the spring and wished to know something of their new battery. My letter brought forth this reply.)

C. D. JACKSON & CO.

IMPORTERS OF AND DEALERS IN
MARBLE, STONE, MOSAIC PLACQUETTES & GRANITO

SOLE REPRESENTATIVES FOR

FABRICOTTI'S
CP, FM & FS, CARRARA

MARCHETTI'S
A.P. BLANC P. MARBLE

DEL MONTE QUARRIES
AFRICAN & MORDIAN MARBLES

FLVRE & CO
FRENCH LESTONES

GIVET, POMMIER & CO
FRENCH LESTONES

PATENT UNIVERSAL MARBLE CEMENT


OFFICE, YARD AND WHARF

105TH STREET AND EAST RIVER
NEW YORK

CABLE ADDRESS RECHINO, NEW YORK
LIEBEN'S CODE ABC 5TH EDITION

TELEPHONE 3727 HAYLEN

SOLE REPRESENTATIVES FOR THE FOLLOWING QUARRIES

GEORGE HARTOULL 
BASSEVILLE (PIERRE DE TOURS)

ESCHAILLOU, BLANC & FLEURY
TAVENNELLE

ESCALLETTE
SWISS GRANUL

BENDU
PIERRE DE LENS

CARR STONE
AND OTHERS.

SUBJECT

By Nov. 18th, 1910.
NOV 19 1910

Mr. T. Brady,
c/o Edison Storage Battery Co.,
West Orange, N. J.

Dear Sir:-

In accordance with request of our Mr. Georges who called upon you yesterday, we are sending you by express, some sample spawls of Carrara Italian Marble such as we could supply you for your requirements.

We are also communicating with our shippers abroad, requesting them to furnish us with a price on Marble Waste of this character and we shall not fail to quote you a price on same as soon as we hear from our shippers.

Thanking you for your inquiry, we remain

Yours very truly,

C. D. Jackson & Co.

RMF/FW.

ALL AGREEMENTS ARE CONTINGENT UPON AND SUBJECT TO SHIPPER'S ASSUREMENT, DELAY BY CARRIERS, OR OTHER CAUSES BEYOND OUR CONTROL, AND ALL ORDERS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

[ATTACHMENT]

85 B. Co
Equip

Brady

Find out what Jackson
& Co my will import
50 tons of the marble
which
they sent a sample

Edison

Analysis of Marble from
C. T. Jackson & Co
New York

12/3/1910

#85

An average sample of the Marble
shows following results:

CaO - 54.28 %

CO₂ - 43.70 "

SiO₂ - 0.32 "

MgO - 0.75 "

FeO - 0.42 "

Al₂O₃ - 0.24 "

H₂O - 0.05 "

99.76 "

J. Goldstein

12/12/10

[ATTACHMENT]

Analysis of Marble from the Astoria Marble Sawing Co. Astoria, O.		12/27/10 #92.
An average sample of the Marble shows following results:		
CaO -	52.80 %	
CO ₂ -	41.97 "	
SiO ₂ -	4.38 "	
MgO -	0.10 "	
FeO -	0.13 "	
Al ₂ O ₃ -	0.54 "	
H ₂ O -	—	
	99.94 %	
		J. Goldstein
12/27/10		

A. I. CLYMER
VAN WERT, OHIO

November 18, 1910

Second National Bank,

Orange, N. J.

Mr. Chas. M. Close, Cashier,

My dear sir : Your letter of 16th inst. is at hand,
with certificate No. 92 for 100 shares in the capital stock
of Edison Storage Battery Co., issued in my name, in payment
for which I previously mailed you my check on Henry Claws & Co.
for \$10,000, to be placed to credit of Mr. Thomas A. Edison.
I have written Mr. Edison, also, acknowledging receipt of stock.

Begging to thank you for your courtesy, I remain

Yours very truly,

Arthur I. Clymer



W.C. Hendon
The Baker Motor Vehicle Co.
 MANUFACTURERS OF
ELECTRIC VEHICLES
W.C. Hendon
 1201 E. 15th St. S.W.
 Edgewood, Okla. U.S.A.M.S.R.
 O.B. HENDERSON Sells Here.



Cleveland, Ohio
 November 21, 1910.

Edison Storage Battery Co.

Orange, N. J.

My Dear Mr. Bee:-

Attention Mr. W.C. Bee.

Your two letters of November 16th at hand. I beg to say that I do not believe that a scheme of basing the discount on the number of batteries bought by a manufacturer will work out as to-day every high grade standard article is sold to legitimate manufacturers at the same price regardless of the quantity bought; possibly with but one exception where a manufacturer closes a very large quantity. In this latter case the manufacturer possibly obtains a slightly higher discount than usual.

Referring to the latter sentence in one of your letters about cutting prices, we beg to say that no manufacturer of a high grade article to-day allows his sub-agents to cut prices but I also think that it would be difficult for you to watch this closely as the manufacturer of Electric cars will find a way of excuse by saying that he did cut the price on his car and not on the batteries. This is done to-day to our absolute knowledge by one manufacturer, whose name I do not care to quote, in Chicago and driven to such an extent that he has sold several cars with Edison batteries at the price of the car with lead batteries.

I thank you for your congratulations and beg to say that the record was made with 40 cells. Referring to the 44 cells which you kindly did let me have, I beg to say that the average ampere hour capacity of this battery was 270 ampere hours with the exception of 5 cells which would not show up as good and I, of course, left out the 4 worst cells.

I am glad to learn that you will soon be in shape to make prompt deliveries on your batteries as we are certainly to-day in a very bad shape and have to accept cancellations on cars to be equipped with Edison batteries for the reason that we cannot obtain the batteries from you in time. I am surprised that you charge this delay partly against our special trays as I do not think it would be asking too much from this Company if you were to keep several sets of trays in stock.

Referring again to the undelighted point of the cells shifting in the trays, I beg to say that it is unjust if this is charged by your Company to our special trays as I have experienced the same trouble with your late standard trays as well in this factory as on some batteries in outsiders' cars and for your interest I beg you moreover to take my word for it that this trouble will not be eliminated before you will provide on your cars an emboss which will have the proper shape and which will be large enough to allow for the experienced distortion of the metal around the embossed after the connectors have been attached and detached several times. I also beg to say again that the present conical shape of the emboss tends to slip out of the hard rubber button with the slightest effort.

To prove to you once more that my statements are correct, I beg to call your

The B. M. V. Co.

Sheet No. 2.

E. S. B. Co.,

attention to the fact that in the 44 cell set of battery which you sent me the most faulty cells as far as shifting is concerned were those in the small stiff two cell trays.

Hoping to hear from you that something has been done on this mentioned situation, I remain,

Yours very truly,

Ed. Greenfield

c/2 P.S. I expect to be in
N.Y. Monday next, to sail for
Europe on Tuesday. Should like very much
to see you in N.Y.

EDISON STORAGE BATTERY COMPANY
SUITE 424
McCORMICK BLDG. 189 MICHIGAN AVE.
CHICAGO

November 26, 1910.

Wm. G. Bee, Manager of Sales,
Edison Storage Battery Co.,
Orange, New Jersey.

Dear Sir:

Supplementing my letter of even date, in regard to the proposed announcement in the press, I today met Mr. Anderson at his Chicago Branch, and he suggested bringing in the name of the Detroit Electric in connection with the Anderson Carriage Company, reading as follows:

Anderson Carriage Company, Manufacturers Detroit Electric.

Also, it occurred to me that we should mention the users of the Edison battery in commercial vehicles, namely,

Lansden Company,
Automobile Maintenance & Mfg. Co.
Anderson Carriage Company.

If you wish to include the General Vehicle, you, of course, know best.

I have arranged a meeting Monday. There will be present representatives of the Commonwealth-Edison Company, the Automobile Maintenance & Mfg. Co., Mr. Price and Mr. Anderson, of the Anderson Carriage Company, and Mr. Klingelsmith of the Lansden Company, and possibly a representative of the Retail Drygoods Association.

Yours very truly,

CBF-L

Whealcraft
File this
under Battery
Accounting

*must
C.B.H.*

The New Edison Storage Battery

WARNING!

The Public is hereby warned against certain manufacturers of ELECTRIC VEHICLES, who, solely to obtain a greater profit from their vehicles, use a cheap lead battery, giving but half the mileage and one tenth the life of the above.

Use of the lead battery reduces the total cost of a vehicle, but is PRICE the only thing to be considered in making so important an investment?

For the above reason no hesitation has been shown in making all kinds of misstatements regarding THE NEW EDISON STORAGE BATTERY.

Mr. Edison certainly would not spend seven years obtaining a battery to solve the problem of vehicle traction in cities, were he not thoroughly convinced the results could never be obtained by the use of a lead battery.

The great stores of New York City, after using lead batteries for many years and EDISON BATTERIES for but three years, are discarding the lead, and using the higher priced EDISON BATTERY. WHY?

BECAUSE IT IS RELIABLE

As the manager of one of the large department stores said,

"It is more important to have a reliable delivery department than to save the difference of a few hundred dollars between the First Cost of an EDISON and a LEAD battery".

The following firms are now selling and advertising cars regularly equipped with the NEW EDISON STORAGE BATTERY.

ANDERSON CARRIAGE CO.
S.P. BAILEY CO Inc.
BAKER MOTOR VEHICLE CO.
THE WATERLEY CO.

DETROIT, MICH
AMESBURY, MASS
CLEVELAND, OHIO
INDIANAPOLIS, IND.

Information regarding this battery will be gladly furnished upon application to

Edison Storage Battery Co., 121 Lakeside Ave., Orange, N. J.

424 No. 1st St. Chicago

7

ESBC-stock sale

A. I. CLYMER
VAN WERT, OHIO

Mr. Thomas A. Edison,
Orange, N. J.

Harry writes about the
date of the sale of the
stock, 1890, and it, E

My dear sir: Referring to my recent purchase from you of 100 shares Edison Storage Battery Co. at par. As a gentleman of large interests and important connections, you cannot but have noted my very exceptional confidence, in proposing to buy property without having made any inquiries whatever of you, as to the business. In your letter of 9th inst., you said, "I thank you for your interest and confidence in the storage battery." Allow me to say, Mr. Edison, that my confidence in the battery has been due not alone to its obvious value as an invention but to my feeling that both battery and shares are invested with your own personality as a genius and a gentleman. I did not question the price of the shares, and the amount of money I have invested in them is proportionately very large for a man of my limited means; this, I think, may tend to increase your kindly interest in me as a holder of your stock. In this single

Mr. Edison, #2

A. I. CLYMER
VAN WERT, OHIO

instance, I felt it unnecessary to my protection that I first inform myself fully as to the corporate, financial and business condition of the investment in question, and I am pleased to assure you that this has been due solely to the fact that it is your invention and your controlling interest in the company, that have induced my absolute confidence. I have considered it to be an organization in which a gifted man and a group of his friends have formed an ideal combination of brains, character and capital.

And now that I have fully explained the reason for my complete faith and desire to invest in the battery shares, I trust that you will care to give me--in absolute confidence if you so condition--some information as to the company and its business. I should be interested to know, if you will obligingly inform me, as to --

The date of incorporation,
No. shares authorized,
No. shares originally issued,
Additional issues, with dates,
At what price the present new shares are taken by the stockholders

Mr. Edison, #3

A. J. CLYMER
Van Wert, Ohio

and what proportion of these shares are retained by the company as treasury stock,

Do my shares entitle me to an interest in the latest issue, and when do the transfer books close against the allotment of the new stock ?

May I ask if the company has any bonded indebtedness, and if so, the amount, interest rate and maturities ?

Would you care to enclose to me, Mr. Edison--for immediate return if so desired--a copy of the company's latest statement of condition, such as are sent to stockholders of the Eastman Kodak Co., for instance ?

I should be much interested to know whether the New York City crosstown lines have ordered more Edison battery cars, in addition to the trial car, and if it be true (as I have read) that a large contract has been made with an Alaskan transportation company.

It will gratify me greatly to read whatever information you will privately afford me, and awaiting your kind reply with very much interest, I beg to remain

Sincerely yours,

A. J. Clymer

A. I. CLYMER
VAN WERT, OHIO

December 10, 1914

Edison Storage Battery Company,
Orange, N. J.

Mr. H. F. Miller, Secretary and Treasurer,

Dear sir :

Your letter of the 1st inst. relative to the
Edison Storage Battery Co., replying to mine of 29th ult. to Mr. Edison,
was received in my absence.

I believe I do not fully understand the situation:
you state that the original authorized capital of \$1,000,000 was fully
issued; that the capital was recently increased by \$2,500,000, making
the total capital \$3,500,000; that \$1,000,000 of stock was given to
Mr. Edison for his patents--those existing and all future patents; and
also that about \$2,000,000 of the recent increase was issued to Mr. Edison
at par, for money advanced by him to the company. (In his letter of
2d ult., he informed me that he paid into the Edison Storage Battery Co.

*Harvey
Tee him all about it
Kobue see the
letter
Au
17/7/14*

E. S. B. Co. 2

A. I. CLYMER
VAN WERT, OHIO

\$1,900,000 cash, for which he took stock at par.) May I ask you to
kindly advise me how the \$1,900,000 which he paid into the company is
invested; is it in lands, buildings and machinery? I had not supposed
that so large an amount was invested in the plant. I should be pleased
to know what amounts, respectively, are invested in ground, in buildings
and in machinery. Doubtless you can obtain this from entries in your
present books.

May I inquire to what use the proceeds of the \$500,000
bond issue have been put? This, I understand, makes a total investment
of \$2,400,000 or \$2,500,000. I will also ask what is the interest rate
on the bonds and when they mature.

Referring to the \$1,000,000 of stock given to Mr. Edison
for his patents now existing and all future patents: as I right in under-
standing that this includes all patents now or in future issued in con-
nection with the Edison storage battery in this and foreign countries?

I enclose herewith, for your interest, two recent adver-

E. S. B. Co. 3

A. I. CLYMER
VAN WERT, OHIO

tisements of the Woods Motor Vehicle Co., from the Chicago Record-Herald. This company's attitude seems quite unfair and unbusiness-like and evidently is calculated to discourage electric-carriage buyers, as far as possible, from specifying the Edison battery. I cannot understand their animus, unless they have a private arrangement with the Exide people or own an interest in the Electric Storage Battery Co.

You understand that I have requested particulars relative to the company, for my private enlightenment as a stockholder interested in his investment and in the success of the company. It is only such information as one ordinarily would desire before rather than after making the investment. Your trouble in fully advising me is much appreciated.

Very truly yours,

P-O Box 351



THOMAS A. EDISON
President

FRANK L. DYER
Vice-President and General Counsel

E. G. DODGE
General Manager

H. F. MILLER
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

Telephone, 908 Orange

ORANGE, NEW JERSEY Dec. 16th 10.

A. I. Clymer, Esq.,

Van Wert, Ohio.

Dear Sir:

Replying to your letter of the 10th instant I beg to reply that the \$1,900,000. cash was paid in by Mr. Edison over a period of ten years, and it was used for machinery which was specially designed and made; and which became in time, obsolete, owing to improvements in methods of manufacture and had to be scrapped. In fact, approximately the whole amount was used in perfecting the battery and in experimenting, to bring the manufacturing processes up to a commercial stage, which was accomplished a year ago last July, when we began shipping the improved cell.

Thousand of experiments were made as well as exhaustive tests before Mr. Edison was satisfied with the battery, all of which takes money which Mr. Edison, sanguine of the ultimate success of the battery, willingly advanced the Company. This experimental account will, in time, be wiped out by profits.

- 2 -

The real estate, buildings and machinery owned by the Company are collateral for the \$500,000. bonds held. The bonds bear interest at six percent and mature in 1917.

Mr. Edison agreed to assign to the Company, all patents issued or to be issued on storage batteries for the use of the Company in the United States only.

Yours very truly,

H. S. Miller
Treasurer.

Ed - Hand
Amd 12/27/10

A. I. CLYMER
VAN WERT, OHIO

Edison Storage Battery Co.,
Orange, N. J.
Mr. R. F. Miller, Secy.-Treas.,

My dear sir:

interest.

I have no means of giving you any further information regarding the electric car merger, but thought to hurry the hint of it to you. The Wagon Works is large, old-established, I believe accustomed to doing things in a big way and I don't know who or where the Chic Electric Car Co. are. I don't know where the Wagon Works are located in Chicago.

I wish the Anderson and Baker Co. could do better justice to themselves and you in Chicago - the second largest city in the country. Enclosed ads show the comparative interests taken by them and by the Woods Co. in the very important, level covered reached by the Chicago dailies. The Detroit and Wood ads appeared in the Record-Herald of yesterday. The full-page ad, demonstrating the value of advertising in the Sunday Record-Herald, incidentally booms the Woods electric.

A. I. CLYMER
VAN WERT, OHIO

Edison Storage Battery Co. 2

As it happens, your ad appears on the page opposite the full-page ad. I think it is an extremely attractive and convincing advt., with its two display lines and the maps. Having had a very considerable and successful experience in advg., I am in position to appreciate your announcements. Will you pardon me if I suggest that it might be desirable, (having interested the reader in your battery) to invite him to send for your new illustrated booklet, fully describing the battery, its unique features, advantages, and remarkable accomplishments to date. This will put you in possession of the name of a "prospect," which you can at once mail to each of the companies equipping with the Edison.

I wish to do everything in my power to further the interests of the company, and then when I am ready to buy a car, perhaps you will care to provide me with an Edison battery at an inside price, very privately.

I am not informed as to the desirability of the Motz puncture-proof tires, advertised on same sheet as your ad, but the idea of a trouble-proof tire for electric use (with ladies especially) strikes me very forcibly. It removes an important source of doubt from the minds of a large contingent of possible buyers.

Hoping to hear from you in reply, I am

Yours very truly,

A. I. Clymer

say that we are only
just coming out even on battery
as we give 20% off + 2 1/2% for
cash, soon we will be
Costs - we kind to stop advertising
a little as we were getting
our orders in
I don't know
the full-page ad, demonstrating
the value of advertising in the Sunday Record-Herald, incidentally
booms the Woods electric.

Woods has a special
contract with Guide
is very numerous
7

**Edison Storage Battery Company Records
Correspondence (1911-1920)**

This folder contains documents, primarily correspondence, relating to the business of ESBCo. Included are letters pertaining to the outfit and supply of the ESBCo works, corporate finance, and the production and sale of batteries and by-products. Correspondents include Edison, Charles Edison, Robert A. Bachman, Donald M. Bliss, Miller Reese Hutchison, Stephen B. Mambert, Arthur Mudd, C. E. Sholes, and other ESBCo employees; investors Arthur I. Clymer, and William D. Sloane; and Frederick A. Hall, an efficiency engineer associated with Frank B. Gilbreth. Some of the items deal with supplies available from the Sangamo Electric Co., the Troy Electric Co., and the Quigley Furnace & Foundry Co. Other documents relate to the foreign sales of Edison storage batteries; the specifications for batteries required by the U.S. Navy; a sales company called the Transportation Engineering Corp., organized by one-time ESBCo employee, H. G. Thompson; and the development of an automotive starter by the Tidewater Equipment Co. Also included are memoranda and conference minutes summarizing the staffing and structure of the Engineering Department, Research Department, and Tube Inspection and Assembly Department; and an insurance report from 1918 providing the layout of the ESBCo manufacturing plant in West Orange.

Less than 10 percent of the documents have been selected. The items not selected include routine exchanges regarding the supply of equipment and material for ESBCo, the payment or deferral of accounts, and other matters of daily administration. Also not selected are letters of transmittal and acknowledgment and items that duplicate information in selected material.

83 B 6-

Employees

The Chase National Bank

A. Barton Hepburn,
PRESIDENT.
Albert H. Wiggin,
VICE-PRESIDENT.
Samuel H. Miller,
TREASURER.
Henry M. Conkey,
ASSISTANT.

New York Jan. 14, 1911.

Thomas A. Edison, Esq.,
West Orange,
New Jersey.

RECEIVED
JAN 16 1911
Ans 1/17/11

Dear Sir:

One of our clients has made inquiry of us concerning Mr. A. J. Doty, who, we understand, is connected with the Edison Storage Battery Company. We are advised that Mr. Doty is well known to you.

We should esteem it a courtesy if you would favor us with your estimate of Mr. Doty's character and responsibility. From your knowledge of his financial worth, would you consider an individual contract with Mr. Doty of \$15,000. to \$20,000. as good?

Thanking you in advance for your courtesy in the matter, and requesting that you treat this inquiry as entirely confidential, we remain

Yours very truly,

McCarthy
CASHIER.

I will answer

Mr. Doty is employed by the ESB & Co.
as an Engineer installing
Batteries, I am not familiar with
his financial condition, He is
in my opinion, a reliable man
Edison

The Chase National Bank

A. Burton Hophorn,
CHAIRMAN OF THE BOARD
Albert H. Wiggin,
PRESIDENT
Samuel H. Miller,
VICE PRESIDENT
Henry M. Conkey,
CASHIER

New York Jan. 20, 1911.

Thomas A. Edison, Esq.,
Orange,
New Jersey.

JAN 21 1911

Dear Sir:

Please accept thanks for your
favor of the 17th instant, in response to our
recent inquiry. We appreciate your courtesy
in this matter.

Yours sincerely,

W. B. Conkey
CASHIER

Aug 30 11 2586,

Jan'y 26/11

2 WEST FIFTY-SECOND STREET

The A Edison Co
Dear Mr Edison

As owner of 100000
of the 440 Bonds and
625 Shares of the Capital
Stock of the Edison
Storage Battery Co I am
naturally desirous of
knowing something
about the condition of
the Co at this time

The last information
recd. was contained in

a letter from H. D. Miller,
Treasr. dated Aug 27 1909
advising the success of
the Battery and of its
great prospects.

I shall be much
obliged if you will send
me a statement of the
Co's condition - or at least
give me some idea of
what has been done
towards getting the Comp.
into that shape you pre-
dicted for it some years
ago. Yours truly
H. D. Dwyer

[ATTACHMENT]

Wm. D. Spence

Dear Sir

A firm of public accountants
are now engaged in making
~~completing~~ an audit &
we should have in
shortly & will send
you the results -
We ~~are~~ have established
a very good business
position at present

to about \$60,000.
we employ 600 men -

per month, & it is growing

On account of great
expenses of advertising
& establishing ourselves
there are no profits but
~~we~~ This preliminary
expense will ~~not~~
decrease from now on
& we will surely show
good Earning before
face -

Σ

C-BC

EDISON STORAGE BATTERY COMPANY
SUITE 424
McCORMICK BLDG. 193 MICHIGAN AVE.
CHICAGO

February 4, 1911.

Mr. Thomas A. Edison,
Orange, New Jersey.

WJ

FEB 6-1911

My dear Mr. Edison?

The Chicago Automobile Show is the best they have ever had. The weather is the finest I have ever found it in Chicago at this time of the year. The crowd is something fierce. The electrical people are doing the biggest business they have been doing for a year.

Anderson is showing five models, all equipped with Edison batteries. As near as I can make out, his sales at the present time are about half lead and half Edison. I know they are selling them because I have seen the contract signed. Anderson is doing the biggest business of any of the pleasure car manufacturers. They shipped from their factory in the month of December eighty-three cars.

Waverly is showing one car with Edison Battery.

Ohio is showing Edison cells in trays.

Babcock is showing one model with Edison batteries.

Baker has got cold feet again, but this happens to be only in Chicago. The facts of the case are as follows: Temple, a Jew, who is their biggest agent, and by the way a hustler, buys cars without batteries, and assembles his own lead battery here. He uses what they call a "Universal" made here in Chicago, and much cheaper I understand than the Exide. He says that he is entitled to manufacturers' discount on Edison Batteries. He is going to sell from fifty to seventy-five Baker rigs this season. He will push Edison Batteries if we give him the discount. I say he is not entitled to it. Ten per cent. is all he should get. The Baker people

TAE -2-

don't want us to give him the full discount, and if we did, we would only make them sore. In the way I size it up, the public is going to demand Edison Batteries, and Temple will have to put them in anyway. He has a Baker car equipped with Edison Batteries, and is getting excellent results.

Woods and R. & L. are fighting us hammer and nail.

The "Ironclad" is now being put off for first of March delivery. They had promised it for first of January, but have not made good. They got out a guarantee of 20,000 miles over a period of three years, and if the 20,000 miles are run in a year or two years, that ends it. If the battery runs three years without doing the 20,000 miles, that ends it. But, mind you, they have not delivered any of the batteries yet.

I spent last evening with Gruenfeldt, the engineer of the Baker Company. He is our friend, and I honestly believe we will win out through him.

But the real live wire of the whole bunch is Anderson.

Yours very respectfully,

WGB-L



A. J. CLYMER
VAN WERT, OHIO

*Rec please tell me
about Wotz times so
I can answer clymer
Reimüller letter
(note Baker reply)*

February 1, 1911

Edison Storage Battery Company,
Orange, N. J.

Mr. Thomas A. Edison, Pres't.,

My dear sir :

Desiring to keep you informed of

anything I hear affecting the sale and success of the Edison battery, I wish to mention something that has come out in my correspondence with manufacturers of electric cars, toward securing a bargain in an up-to-date car.

The Baker Motor Vehicle Co. writes me that "it is only recently that manufacturers have been getting out bodies which will take the Edison battery and we do not think you could find a car second-hand. There is a new battery brought out by the Electric Storage Battery Co. called the Iron-Clad, which has almost stopped the sale of the Edison, and of course any of our cars would take this Iron-Clad battery."

They say nothing further in this connection, as to the comparative desirability and price of the two batteries, but it gives one the impression that something is being done to the disadvantage of the Edison. Perhaps the Electric storage Battery Co. are trying to coax the Baker Co. away with special inducements. However it may be, I should

A. I. CLYMER
VAN WERT, OHIO

Mr. Edison, #2

greatly regret to see our company lose perhaps the most prominent electric car mfg. company.

Without any reference to the comparative merits of the Edison and Exide products, it is evident that this is no ordinary business competition--it is a battle for first place.

I should be interested to know the comparative prices charged for the Edison, the Exide and the Iron-Clad batteries, (their equivalent of 40 cells Edison A-6.) if you will kindly inform me. I believe the car builders balk at the extra charge of the Edison S. E. Co., thinking it discourages prospects from buying their cars -- probably they think buyers will make no allowance for the extraordinary life of the Edison ^{conclude} or ~~think~~ that it has not had time to demonstrate its value in that respect. Perhaps the decreased cost which you stated, in a former letter, that you were expecting to reach, will enable you to meet competitors on a cheaper basis.

I wanted very much to get a "used" or "demonstration" car, 1910 or 1911 model, shaft-driven, Motz cushion tires, with hoods of proper capacity to accommodate Edison batteries. Will you be kind enough, Mr. Edison, to inform me (very privately if desired,) whether you personally favor shaft- or double-chain-drive? We have brick-paved streets and fairly well macadamized country roads. Perfectly level country. I should think that a completely enclosed chain-drive would be especially desirable--but in the absence of that, one must choose between shaft- and exposed chain-drive.

A. I. CLYMER
VAN WERT, OHIO

Mr. Edison, #9

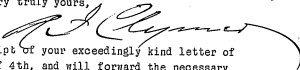
Has it been definitely ascertained that the shaft-drive consumes the current materially faster than the chain-drive, on such roads as I have just described ?

And may I beg to ask whether you or your friends have had any experience with the Motz cushion tires ? I have deferred buying any kind of a car for several years, as I am neither mechanical nor "husky," and have been held back through dread of the inevitable tire troubles. I quote, confidentially, from a letter just received from Anderson Electric Car Co.: "The Motz tire proposition we are not very much in favor of. We do not believe it will relieve you of all the troubles. While you might avoid punctures, you would have other troubles which our (Cleveland) agent would explain."

This may be really true; or, it may be that the Anderson and Motz people have disagreed, as the Motz ad. in to-day's Chicago Record-Herald omits the name of Anderson from an impressively long list of car builders who include Motz tires in their equipment.

I have not as yet received your reply to mine of 4th inst., but trust it is on the way.

Very truly yours,



P.S.: I am this moment in receipt of your exceedingly kind letter of 10th inst., replying to mine of 4th, and will forward the necessary details as to our current, as soon as I shall have determined on make and type of car.

A.I.C.

[ATTACHMENT]

I willing
Ans
Feb 8-1911
Gamm

Moly tire is used instead of a
Solid - it takes more current than
solid tire. It don't skid as
much. Mr Bee our Selling
agt says its spoken of
favorably

In level city would say
Shaft drive but for
very hilly Country
should say Chain drive
Baker or Andersen are
good Cars -

The Iron clad Lead Battery
is hanging fire, They are
having trouble with it
of course its got out especially
to fight us but we shall
win in the end -

Spaced chain drive is a better
than covered chains - particularly as they are

ESAC - 5722

THE INVESTORS' AGENCY, INC.
ESTABLISHED 1912
NATIONAL CITY BANK BUILDING
22 WALL STREET NEW YORK TEL. 3405 8900

M. L. SCUDDER, PRESIDENT
HARVEY SCUDDER, SEC. AND TREAS.

SCOPE
INVESTIGATIONS, AUDITS
REGISTRATIONS FOR BANKERS
REGISTRATIONS ON CORPORATIONS
REGISTRATION OF SECURITIES
LEGAL ACCOUNTING
PROFESSIONAL SERVICE INVESTORS
STATISTICAL LIBRARY 1885-1910

Am 2/18/11
ES Battery Co is just
getting the combs and
the boxes not yet 50
paying
as there has been no
current
FEB 17 1911
Edison Storage Battery Co.
Valley Road,
West Orange, N. J.
Gentlemen:-

We are appraising the above securities in connection with
Tax Proceedings for the Comptroller of the State of New York.
Will you kindly let us know the fair market value
of the above securities on January 11th, 1910?

Will you also state what were the prices of the
sales or bids made about that date?

Those securities are in the Estate of Hamilton McK.
Twombly.

We would be pleased to receive for the files of
our Library any printed documents that you may have concerning
the above company.

Thanking you for the courtesy of an early reply, I

am,

Respectfully yours,

Harry A. Scudder

MS/H.

2/18/11
you are paid
the price
of the
valuable but its
value now is on its
prospects
10 to
120. per share

Write 6/14/11
6568.

1990
E. D. MURPHY,
DEALER IN
INACTIVE SECURITIES,
51 WALL STREET, NEW YORK.
TELEPHONE, 7383 HANOVER.

MEMORANDUM

Dear Sir:
I offer subject to previous sale:-

JUN 5-1911

\$10,000. Edison Storage Battery Co. 6s 1916

Bid wanted.

Will sell any part.

Very truly yours,

E. D. MURPHY.

Dyer =
Here is a good
change to get a good
bond if you find
want any probably
\$85. will take them
Σ

file

ESBG- stock

ROAD
TELEPHONE ROAD DIVISION
BOSTON

A. H. DE WITT
BONDS AND INVESTMENT SECURITIES
20 BROAD STREET

Ans 6/20/11



NEW YORK, June 14th. 1911.

The Edison Storage Battery Co.
Orange, N. J.

Dear Sirs;

I have had an inquiry for some stock of your
Company and would be pleased to know if you have any to offer and the price.

Will you also kindly send me a prospectus or a
copy of the last statement issued.

Yours very truly

Say

A. H. De Witt.

*The Company have some shares
in the treasury but will not
sell for less than par*

See E

ESS. 80

MAIL
TELEPHONE BOARD RECEIVED
1911

A. H. DE WITT
BONDS AND INVESTMENT SECURITIES
20 BROAD STREET

Ans 6/27/11

The Co has only recently started info
share paid no dividends as yet probably
will not do so for some time
profits will be used for extending the business

MAILED 20th. 1911.
NEW YORK

The Edison Storage Battery Company.
Orange, N. J.

Dear Sir:

The Co is a close corporation the stock
is principally owned by Mr. E. J. ²⁷Edison

Referring to your letter of June 21st. by

Mr. H. P. Miller. I have a customer who is inclined to buy some of the
stock of your Company but before doing so wishes some information in regard
to the business. Can you send me a prospectus of the Company and a copy of
the last financial statement. I would also like to know what dividends the
Company has paid in the past and what the present rate is.

Am sorry to trouble you for this information
but have been unable to find it in the financial reports.

Kindly let me know how many shares you can
offer at par and what commissions I may expect if I dispose of the same.

Yours very truly

A. H. De Witt

Aus 7/10/11

Orange, N. J.

A. I. CLYMER
VAN WERT, OHIO

EDISON MACHINE CO. PATENT
JUL 10 RECEIVED

July 7, 1961

July 7, 1914
Say the factory
is owned by the
Lawrence Co.
A brick of brick in
the manuf. of
Eastern auto
and by the
the adaption
ter and heavy
for more
Billion
the manuf.
of the factory
the to the
of building
Q

How soon do you expect to be able to
storage battery automobiles ? Awaiting your
information as possible, I am
P.O.Box 351 Yours very truly

Yours very truly,

What I wish is the wholesale price, to you, of the rectifier with the mercury appliance as stated.

ESBC

Ans 9/16

A. I. CLYMER
VAN WERT, OHIO

Sept. 11, 1911

Edison Storage Battery Co.,
Orange, N. Y.

Mr. H. E. Miller, Secty-Treas.,

Dear sir : I recently wrote Mr. Bee, Manager of Sales, regarding battery, appliances, getting General Electric Co.'s wholesale quotation on rectifier (voltage 110, cycles 60, phase of alt. current, single), as per a letter which Mr. Edison requested Mr. Bee to write me last Febry. I have not heard from Mr. Bee since, altho he may not have had sufficient time to get G. E. Co.'s reply and advise me.

Will you very kindly request Mr. Bee to advise the Gen'l Electric Co. that in addition to the above information (voltage, etc.,) the rectifier is desired at a place where the current is temporarily turned off in the course of the night, when shifting from one engine to another, this resulting in discontinuing the action of the rectifier and it does not resume its work. I understand the G. E. has a mercury attachment for rectifier covering just this condition--by its use, the rectifier resumes its work when the current is resumed at the light and power plant, and the rectifier automatically discontinues when the batteries are fully charged. I am sure you will understand the situation perfectly, and hoping to hear from you by early mail, I remain

Yours very truly,

A. I. Clymer

[ATTACHMENT]

M.G. Bee

Please let me know
what to say to Mr. Clymer

H. F. M.

40 amp rect

460-600 50% + 25%

770 B Schenck

[ATTACHMENT]

Sept. 14, 1911.

Mr. Harry Miller,

Dear Sir:-

Referring to attached letter from Mr. Clymer, we are advising Mr. Clymer today in detail, in reference to the Edison battery he proposes to purchase, together with Mercury Arc Rectifier, and have noted the contents of his letter to you, Sept. 11th.

E. J. Boss, Jr.



EJR/AL

*Letter
ES. BCO.*

Dec. 8th, 1911

MR. H. T. LERMING:-

Is there any way in which we can expedite the passage of Storage Battery orders for work done by the Laboratory?

George Meister complains that the Laboratory pay roll is frequently held up because he is unable to properly distribute charges on work done for us, for the reason that our formal orders do not reach him in time to give him the necessary information. The situation is this:

Frequently we have work done in a hurry, and on Mr. Bachman's verbal instructions to the Laboratory, which instructions are later confirmed by formal order. You will readily see if, for instance, such work be begun on Saturday on a verbal order given on Friday and formal order does not reach the Laboratory before Tuesday, Meister would be at sea, at least so far as the Storage Battery distribution of the charge is concerned, since the Laboratory pay roll closes on that date.

I am sending copy of this memorandum to Mr. Bachman, and will do everything possible to accelerate storekeeper's requisition at this end, and hope you will find it possible to do something at your end to improve the condition.

35
T. J. LEONARD

TJL/AL

Copies to Messrs. Bachman & Meister.

*Noted
same*

Harry
Dec 7/11
1000 SECOND STREET
New York
J. Edgar
Report

Dear Mr Edison

Early in the year
you wrote me that the
accounts of the Edison
Storage Battery Co. were
then being audited and
as soon as completed you
would send me the
results. Up to this date
I am without any in-
formation, and hope you
will be good enough to
advise me how the Co.
has prospered this year

and what are the prospects
for the future. I had ex-
pected from your letter that
by this time we might
have looked for a dividend
on the Stock. I am
actually in the dark as to
the condition of the Company
and would like very much to
be enlightened. I hold as
you know \$10000. of the
Bonds and 625 Shares of
Stock therefore much
interested.

Sincerely yours
H. St. John

[ATTACHMENT]

Battery - CS & Co

Harry

Write Sloane say
that we are slowly building
up our business against the opposition
of all the land holding Cos & that
our year ends July 28. We will be
in a position to give him some
data by March

How about accepting

Sloane's

to see that
everything goes to show
the Co is going to be a highly
profitable concern

When does our year

End

July 28-1912

Answered
Jan. 4-1912
GPM

*Battery
ESB Co.*

NEWMAN, NORTHROP, LEVINSON & BECKER

ATTORNEYS & COUNSELORS

JACOB NEWMAN
SAMUEL D. LEVINSON
SCLAVIUS V. BECKER
CHESTER S. CLEVELAND
HARRY GOODMAN
ARTHUR B. SCHAFER

CHAMBER OF COMMERCE BUILDING

CABLE ADDRESS "NEWLEBEC"

CHICAGO, Dec. 29, 1911

Jan 18/12
Thomas A. Edison, Pres.
Edison Storage Battery Co.
West Orange, N.J.

*Harry
JAN
was not notified
needed*

Dear Sir:-

Although I have been the owner and holder of
Certificate #75 for ten shares of the Edison Storage Battery
Co. since the organization of the Company, my certificate being
dated Feby. 6th, 1905, I have never received a statement of the
Company or a notice of stockholders' meetings.

Will you please cause a statement of the
Company to be furnished me, and give me such further informa-
tion as I am entitled to as a stockholder.

Very truly yours,

Arthur B. Schaffer

BVB-MD

*Day notice was mailed to Mr. Edison
all stockholders
our next report will be
ready about 3 weeks after
Feby 28 1912 from which he can
get full information*
*Notice was mailed
to all stockholders
HJM*

B.S.
ESB Co

THE PENNSYLVANIA STATE COLLEGE
DEPARTMENT OF MECHANICAL ENGINEERING

STATE COLLEGE, PA.

January 11, 1912.

Mr. Thomas A. Edison,
Orange, N. J.

JAN 12 1912
lu. yk

Dear Sir:-

I am advised that the Electric Omnibus Corporation of New York City has sole rights for the use of the Edison Storage Battery for all traffic by omnibus. Will you please advise me if this is correct?

Mr. C. J. Field of that corporation owes the writer several hundred dollars. Before taking the next step to force a settlement, I would like to hear from you.

Yours very truly,

Arthur J. Wood.

Asso. Professor Railway Mechanical Eng.

AJW/M

Mr C J Field, has no rights or
contracts with myself or
the E S Bat Co -
Edison

ESBC

A. I. CLYMER
VAN WERT, OHIO

January 17, 1912

Edison Storage Battery Company,
Orange, N. J.

Mr. H. F. Miller, Secretary-Treasurer,

Dear sir:

*When is our yearly out
when get thing & will note
what to say or better -
Ans 1/13*

I believe it has been upwards of nine months since I have written you inquiring as to the business of the company, and I am pleased to observe that information from various sources indicates a worldwide interest in the battery and a greatly enlarged extent of use.

I should be glad to learn what the company's present capacity is, and what unfilled orders you now have? I presume the \$500,000 of treasury stock remains intact?

In your letter of Dec. 1, 1910, you stated that you were having an up-to-date system of book-keeping installed by a New York firm of accountants and that when that were finished you would be able to furnish a comprehensive statement of the condition of the company: I do not remember what your fiscal year is, but would be very glad if you would send me a copy of your statements issued since the book-keeping system referred to was put into effect. If Mr. Edison would prefer that it be kept quite confidential, it might be sent registered and I would return it promptly if desired.

I should also be greatly interested to know, in absolute confidence if wished, why the company has made a contract with the Anderson Electric Car Co. excluding all other electric car

A. J. CLYMER
VAN WERT, OHIO

Edison Storage Battery Co. 2

manufacturers from equipping with Edison batteries during the year 1912--feeling very sure, it is not necessary to say, that it was for some reason deemed to the best interests of our company.

I have recently read that Mr. Edison has about perfected his new electric motor: may I ask whether it is to be manufactured by the Edison Storage Battery Co. ? And if so, will you be kind enough to inform me what its uses will be, and wherein it is an improvement over the motors in present use ?

Hoping to hear from you quite fully and awaiting your reply with the greatest interest, I beg to remain, with my kindest regards to Mr. Edison,

Yours very truly,

P. O. Box 351

A handwritten signature in dark ink, appearing to read "A. J. Clymer". The signature is fluid and cursive, with the first name "A. J." and the last name "Clymer" clearly distinguishable. It is positioned to the right of the typed name "A. J. CLYMER" at the top of the page.

[ATTACHMENT]

Mr. Liron

Fiscal year ends
July 28th 1912 Report should be
out between April 15th & 30th

HJM

The 500,000 is still in treasury
~~we were to~~ fiscal year
ends July 28, probably be
out April 15 to 30, ^{we are} we are
getting on our feet but
we are having awful competition
~~and~~ but are gradually building
up the business - we made the
contract with ^{some very} ~~some very~~ ^{successful} ~~successful~~ ^{results}
all the others had secret
contracts with the lead people

and simply used the battery
to knock it - it is only
for 1912, it is only for pleasure
vehicles that ~~Sweden~~
has it exclusive. The other
fellows thought the Iron clad
was to be a success. They know
now that it is a failure
& 3 of them use them no
more

The EMFG Co
~~we~~ are going to Mfr Motors
~~at the~~ that are especially
adapted to the battery
for use in small electric
trucks, no other maker
seems to be able to produce
a proper motor

[ATTACHMENT]

We are creating new uses for the
Cellery. Have a hand down
mower which works fine
& are interesting the mower
people, also complete
System for Lighting Isolated
Country Houses -
Lighting Sparking Autos
Many other new things

Edison

ES 13 C 1
CABLE ADDRESS "FANALL" NEW YORK
TELEPHONE 2281 CANTLAND

LIEBERR, A B C 5th EDITION
AND WESTERN UNION CODES

PRICES SUBJECT TO CHANGE WITHOUT NOTICE,
CONTRACTS CONTINGENT UPON STOCKS OR
OTHER CAUSES BEYOND MY CONTROL, AND
SUBJECT TO APPROVAL BY HOME OFFICE OF BUREAU.

FREDERICK A. HALL
100 N. 4th St. N. Y.
ENGINEERING AND SALES OFFICES
8-7-9 BEEKMAN STREET
NEW YORK

FEB 13/12

Ans 2/15

Feb. 13, 1912

Mr. Thomas A. Edison

West Orange, N. J.

Dear Mr. Edison -

I am here at
Lab nearly every
day ask telephone
etc

Knowing somewhat of how nearly
you approach the ideal in this direction I
assume that you wish to obtain all
possible economies in your works through
greater efficiency and contentment of labor.

I should like to bring a fellow member
of the American Society, who is rather well
known in this connection, to have a brief
talk with you on the subject, or better yet,
to meet you when in New York.

Yours Truly

F. A. Hall.

[ATTACHMENT]

CABLE ADDRESS "FAHALL" NEW YORK

TELEPHONE 5251 CANTLAGE

LIEBBER, A B C 8TH EDITION
AND WESTERN UNION CODES

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.
CONTRACTS CONTINGENT UPON STRIKES OR
OTHER CAUSES BEYOND MY CONTROL, AND
SUBJECT TO APPROVAL OF HOME OFFICE OF WORKS.

FREDERICK A. HALL
INCORPORATED
ENGINEERING AND SALES OFFICES
57-9 DECKMAN STREET

NEW YORK Feb. 28, 1912.

Thomas A. Edison,
Edison Laboratory,
Orange, N. J.

Dear Sir:-

Mr. Laine and myself found our visit to the Storage Battery Plant
very interesting indeed yesterday. Mr. Gilbreth is the man who ought
have been there, but we saw a few little things which no doubt you would
have adjusted if you had had nothing else to do. This is not criticism
as we both thought you were doing a wonderful piece of "Hardware manufact-
uring" in turning out the product, which is of course a wonder in itself
in its accurate adjustment to physical and chemical conditions.

We venture to suggest the following in order to get at
"WHAT YOU WANT TO DO;"

1. Take up lost motion.
2. Take up slack between operations.
3. Cut out unnecessary red tape if any.

"WHAT YOU DONT WANT TO HAVE DONE;"

- a. Dont change any processes.
- b. Dont change any machines.
- c. Dont design any new machines.
- d. Dont interrupt manufacture.

It is easy enough to make rules but hard to get good men to carry
them out. Under the above rules Mr. Gilbreth could not do much harm even
if he did not do much good. We saw a number of places where he could
make savings without interfering with your necessarily complex and com-
plicated processes. We would like you and he to get together to determine
what savings are possible along these lines. Mr. Laine believes that in
the aggregate, he would save a satisfactory number of thousands of dollars

[ATTACHMENT]

-2-

per annum. Should you decide to go ahead, Mr. Gilbreth could in your absence if you wish report to Mr. Bachman, (whom we have not seen).

I suggest that you can settle the matter very quickly before you go away. Have Mr. Gilbreth called up on the telephone either in New York or Plainfield, day or night, and he will come over at once if possible.

Telephone numbers and addresses are given on the enclosed slip. We are at your service.

With kind regards, I remain

Yours truly,

J. A. Hall

[ATTACHMENT]

CABLE ADDRESS "FANHALL" NEW YORK

TELEPHONE 8281 CORTLANDT

LIEBERMAN, A. B. C. 8th EDITION
AND WESTERN UNION CODES

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.
CONTRACTS CONTINGENT UPON PRICES ON
OTHER CAUSES BEYOND MY CONTROL, AND
SUBJECT TO APPROVAL OF HOME OFFICE OF WORKS.

FREDERICK A. HALL
2nd FL. 8281, N. Y.
ENGINEERING AND SALES OFFICES
8-7-9 BECKMAN STREET
NEW YORK

Frank B. Gilbreth,

Office-60 Broadway, New York,-Telephone-Rector 1320.

Residence-711 Ravine Road, Netherwood, Plainfield, New Jersey, Telephone
714 Party L.

William B. Laine- 60 Broadway, N. Y.-Telephone-Rector 1320.

Residence-400-W. 115th St., New York City,-Telephone-Morningside-252.

Frederick A. Hall,

Office- 5 Beekman St., New York-Telephone 8281 Cortlandt.

Residence-128 Ascension St., Passaic, New Jersey-Telephone-1397-L. Passaic

*20 Co
Lynch*

Feb. 23/12

The Troy Electric Co.,
Troy, N.Y.

Gentlemen:-

We will require before long a quantity of small low-priced ammeters for use in connection with our charging rectifier for ignition batteries. The two sizes we will need at first will have a scale of 20 amperes and 10 amperes respectively. While great accuracy is not required, the instruments must be well built and stay in adjustment, and be of uniform quality.

Please advise what you can do, giving us full information, price, etc.

Yours very truly,

DHB/RS

CHIEF ENGINEER.

Sangamo Electric Company

Manufacturers of Integrating, Indicating and

Recording Electrical Instruments

Springfield, Illinois

U. S. A.

May 14, 1912.

JACOB BUNN, PRESIDENT
HENRY BUNN, V. PRES.
R. G. LAMPHIER, MGR.

CABLE ADDRESS
SANGAMO-SPRINGFIELD
WESTERN UNION CODE

Bliss
May 14, 1912

Laboratory of Thomas A. Edison,
Orange,
N. J.

Gentlemen:

We have your letter of the 10th by Mr. Chesler, and are very much pleased to learn that the special amperes-hour meter which we shipped you some time ago for use in your operation of making nickle flake, has proven satisfactory. We can easily take care of the trouble which you experienced with the pin carrying the contact roller, and will be able to follow very nicely, your suggestion to make the travelling arm with roller, but having two small rollers set in the hard rubber disc. This, as you say, will do away with the continuous friction on the moving arm.

The meter furnished you was of 200 amperes rated capacity, but the shunt will carry 300 amperes without injury, although it would warm up quite a little at that load. If you expect to carry loads running from 150 to 300 amperes, we would prefer to make any future meters with a slightly increased carrying capacity in the shunt, but keeping the same ratio between the shunt and the meter, so that the speed, etc., of the meter for any load would be the same as the one you have. If you will simply specify the maximum and minimum load you expect to carry, we will see that the shunt is of proper size for your requirements. We can make up twelve of the meters per the above, and furnish them within three weeks from receipt of order. We have quoted you price in previous correspondence with Mr. Bliss.

We would also refer to the writer's conversation with Mr. Holland and Mr. Bee when at the Storage Battery factory the latter part of March. Mr. Bliss was not there that day, but Mr. Holland mentioned that it would be a pretty good plan if we could make the meter count the number of total layers of copper per nickle deposited. We could readily arrange to do this by letting one of the two

#2--Laboratory of Thomas A. Edison.

contacts on the hard rubber disc be connected to a suitable counting mechanism, so that closing of circuit to this point by the moving arm, would not only operate through the relay to stop that particular plating operation, but would also count one layer deposited.

We have recently developed, in connection with our regular ampere-hour meter for electric vehicle service, a distant operated dial mechanism which would be applied very nicely for this purpose, and if you would care to have the meters fitted with this feature, the dial mechanism could be placed at any desired point near to, or remote from the meter itself, and would give you a record of the total number of layers deposited in any operation. Furthermore, the dial could be arranged with a suitable contact so that after the requisite total number of layers had been deposited, a bell would be rung or a main circuit breaker operated, so that a signal would be made of the entire plating operation having been completed. If you should decide to have the meters furnished with the distant dial mechanism, we would make a charge of \$6.00 net extra each.

Hoping very much to be favored with your order, and thanking you, we are

Yours very truly,

SANGAMO ELECTRIC COMPANY

R. C. Lauphler
Sec'y.

RCL/MP

May 21st, 1912

The Sangamo Electric Co.,
Springfield, Ill.

Attention of
Mr. R.C. Laphier

Gentlemen:-

We have your letter of May 14th regarding the Sangamo meter for nickel fleke department. Everything seems satisfactory.

Regarding the dial mechanism which you have recently developed, I would like to know more about it. Have you any photographs or drawings of same? If so, send them along.

Do you make full charge contact on your regular ampere hour meter for electric vehicles, i.e., when the moving arm comes back to zero after being fully charged, can you arrange a contact to operate through a relay which will trip a switch and open the charging circuit?

Thanking you in advance, I remain

Yours very truly,

EDISON LABORATORY

Per

JCC/ES

B.S.

A. J. CLYMER
VAN WERT, OHIO

June 24, 1912

Edison Storage Battery Company,
Orange, New Jersey.

Mr. R. P. Miller, Secretary-Treasurer,

My dear sir:

Referring to your favor of January 23d:
you advised me at that time that a comprehensive statement
would be issued in April, but as I have not yet received a
copy of same, I think your mailing clerk may have omitted to
send me one, or that it was lost in the mails. Will you kindly
forward another copy to my address?

I should be much interested to know how the
Anderson contract has affected the Edison's business, whether
our output has been increased this year and how the unfilled
orders now stand, as compared with your last advice?
I trust that the factory is running on full time and that prospects
are continually improving. May I ask what uses the Edison battery
seem best adapted to, and whether the difficulties presenting them-
selves in connection with electric carriages have been overcome?

Will you kindly inform me, Mr. Miller, what
progress has been made in connection with the Edison-Esach cars?
Perhaps three months ago, I read in a Chicago paper that Mr. Edison
had been there to contract (I think) with the Illinois Central,
C. & N. W. or some other line out of Chicago, for suburban or
interurban cars operated with Edison batteries: will you please

Henry got last
annual statement
for June 24, 1912

Say we are
dealing with
topping 1748 and worth
of order in book

Brooklyn factory is
large business school
is growing rapidly

Anderson contract only given instructions
for planning. Considerable past work
if work is not given. Have used in working

of battery after that date

A. I. CLYMER
VAN WERT, OHIO

Harry - Draw up Letter

Edison Storage Battery Co. #2

advise me how many cars you have contracted to equip, and when they are to be put into service?

*Reach is making a delivery
10 cars per month
I think he has orders
for 2000 cars
on hand*

I shall be much interested to have some extended information relative to the present business and progress of the company and the developments planned for the near future--in addition to the statement which which you advised would be issued in April.

Awaiting your very courteous reply, I remain

Yours very truly,

A. I. Clymer

*We only fairly turned the
corner in March in which
month we made \$18,000, net,
above bond interest,*

ES 1560

NEWMAN, NORTHROP, LEVINSON & BECKER

JACOB NEWMAN
SALMON G. LEVINSON
BENJAMIN V. BECKER
CHESTER E. CLEVELAND
HARRY GOODMAN
ARTHUR L. SCHWARTZ

ATTORNEYS & COUNSELORS

CHAMBER OF COMMERCE BUILDING

CABLE ADDRESS "NEWLEBEC"

CHICAGO, July 25, 1912

Ans 8/1/12

H.F. Miller, Esq.,
Secretary-Treasurer,
Edison Storage Battery Co.,
Orange, N.J.

*Harry
get same report
as I sent that
man in Ohio -
let me see
it - I
will dictate
a reply*

Dear Sir:-

Under date of January 8, 1912, you wrote me

as follows:

"Our next annual report will be ready sometime in March of this year, when we will take pleasure in sending you a copy, from which you will undoubtedly obtain the information you desire."

Thus far I have received no such report. As a matter of fact, although my certificate of stock is dated February 1, 1908, I have never received a notice of any meeting of stockholders, nor a report of any kind from your company. Will you please therefore forward me copy of such financial reports as have been sent to the other stockholders, and also financial statement of the company's affairs?

Yours truly,

Harry Newman

*copy 750 000
word of this company*

*Read it say we have turned
the corner in March we are
making net about 18 thousand
a month & this will increase
considerably*

8500
fig 1

Sangamo Electric Company

Manufacturers of Integrating, Indicating and

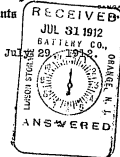
Recording Electrical Instruments

Springfield, Illinois

U. S. A.

JACOB BUNN, PRESIDENT
HENRY BUNN, V. PRES.
R. G. LANPHER, SECR.

CABLE ADDRESS
SANGAMO ELECTRIC CO.-SPRINGFIELD
ILL. U. S. A.



Purchasing Dept.

Edison Storage Battery Co.,
Orange,
N. J.

Gentlemen:

We received Saturday, your order #30607, covering eleven, ampere-hour meters for control of nickel depositing, same as previous one furnished, and thank you very much for same.

We note your reference to our letter of May 14th, 1912, in regard to the features wanted. We have referred to this letter; also to yours of May 10th by Mr. Chesler, and are not certain whether or not you want a distant dial mechanism for recording the total number of layers deposited, as suggested on the second page of our letter of May 14th. If you want this you will also, of course, want the arrangement of letting one of the contacts each revolution operate the distant dial mechanism; also if you want the dial mechanism, please advise whether you wish to have it ring a bell after the proper number of layers have been deposited.

Outside of the question as to the dial mechanism, we will make the change in the arrangement of the moving hand, and will put the two little platinum rollers in the hard rubber dial as referred to in the above letters.

We will also make the meters of 500 amperes rated capacity, but shunted so as to give the same speed ratio as in the original meter.

Finally, we understand that you wish the meter to close circuit alternately, every 5000 and every 18750 ampere seconds, same as the one furnished in February.

#2--Edison Storage Battery Co.

As soon as we hear from you on the above pointw, we will go ahead and can put the meters through in about three weeks, as promised.

Again thanking you, we are

Yours very truly,

SANGAMO ELECTRIC COMPANY

R. C. Lauphler,
Sec'y.

RCL/MF

August 2nd 1912.

Sangamo Elec. Co.,
Springfield, Ill.

Gentlemen:-

Attention of Mr. R. C. Lamphier

Re: our order #30607 and your letter of July 29th wish to say that we want a distant dial mechanism for recording the total number of layers deposited, also the ringing of a bell when the proper number of layers have been deposited.

The 300 ampere capacity meter with contacts to close the circuit alternately every 5000 and every 18750 ampere seconds is perfectly satisfactory.

Please be careful to have the roller contacts and roller axles all platinum, as there is where trouble is likely to start.

Thanking you for your prompt attention, we are,

Very truly yours,

EDISON STORAGE BATTERY CO.

BJD.:REP

Sangamo Electric Company

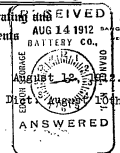
JACOB BUNN, PRESIDENT
HENRY BUNN, V. PRES.
R. C. LAUFSTEN, MGR.

Manufacturers of Integrating, Indicating and

Recording Electrical Instruments AUG 14 1912
BATTERY CO.,

Springfield, Illinois

U. S. A.



MAIL ADDRESS
SANGAMO-SPRINGFIELD
EASTERN UNION CODE

Mr. J. Chesler.

Edison Storage Battery Company,
Orange,
N. J.

Gentlemen:

We have yours of the 6th, and note that you usually deposit 125 total layers of nickel in your plating process. This is what we had understood, and we will, therefore, make the distant dial mechanisms with a fixed contact at 125 layers, instead of the movable contact, unless you advise by return mail that movable contact is desired. We think this will make a very satisfactory arrangement, and somewhat simpler than if we had to use a movable contact.

We will now go right ahead with the work on the meters.

Yours very truly,

SANGAMO ELECTRIC COMPANY

ROL/MF

R. C. Laufsten
Sec'y.

SIGNED IN ABSENCE OF DICTATOR

ADDRESS ALL COMMUNICATIONS TO THE COMPANY

65.00

Harry (Nov 10/15)
Day that we will have the report of
Stockholders meeting next Nov 12/15

~~states~~ I understand that we
were making a profit of about
\$25,000. per month

I have been patiently
waiting for past year and more to
obtain the promised information
as to the condition of the Edison
Storage Battery Co. in which as you
doubtless know I have an interest
to the extent of 100,000 Bonds and
600 Shares of the Stock. Your office
has repeatedly advised me, in reply
to my inquiries, that everything
was going on satisfactorily and I
would receive the information
asked for "very soon" - but it has
never come. I think I am

entitled to know the condition of
the Company's business - and what
the prospects are for a dividend
on the stock - You assured me
humbly and myself, that ~~some~~
day we would find that stock
as valuable as the Loe Kawana
Railroad - is that day near at hand?
I dislike bothering you, but I must
know something definite about
any Company in which I have
an interest - So please let me
hear from you.

Yours truly,
H. H. Hoang

If you know of anyone who would like
to buy my bonds at par & interest kindly
let me know

Sangamo Electric Company

Manufacturers of Integrating, Indicating and

Recording Electrical Instruments

Springfield, Illinois

U. S. A.

Oct. 21, 1912.

JACOB BUNN, PRESIDENT
HENRY BUNN, V. PRES.
R. C. LAUFELIER, MGR.

CABLE ADDRESS
SANGAMO-SPRINGFIELD
WESTERN UNION CODE

Mr. J. T. Chesler,

Laboratory of Thomas A. Edison,
Orange,
N. J.

Gentlemen:

Your letter of the 14th was received during the writer's absence last week, and was held for his return.

We are now working on your meters and hope to have them completed next week without fail. In the meantime, we note that you wish the distant dial mechanism to record total layers; that is, both nickel and copper, making a total of 250. As a matter of fact, we had already gone ahead with the design of a dial mechanism made in this way, as the operation of the two contacts in the meter for the alternate layers of copper and nickel will operate through a 3-wire circuit to the dial mechanism and the hand will move first on the deposit of a layer of nickel, then of copper, and so on.

We will, therefore, show on the dial mechanism, 250 total layers, or 125 double layers of copper and nickel.

The dial mechanism, as previously described to you, has no permanent recording device; that is, does not punch or print any paper, but simply indicates by a large hand, the total number of layers put on, and will have a contact at the 250 total layer point to indicate the completion of the operation. We are not prepared at this time to supply any form of recording device which would have to print or punch a paper.

Trusting this will put the matter entirely satisfactory, we are

Yours very truly,

SANGAMO ELECTRIC COMPANY

R. C. Laufelien
Sec'y

RCL/MF

Oct. 26th, 1912

The Sargent Electric Co.,
Springfield, Ill.

Attention of
Mr. R. C. Lanphier

Gentlemen:-

We have your letter of the 21st instant and note that you will ship our meters for nickelplating work next week. Also note that the dial mechanism is not just what we want, but since you have not made same up, you had better consider our order cancelled on this. If there is any charge for the design or layout of this device, I suppose you will have to charge that up on the bill.

Anxiously awaiting shipment of the meters, and thanking you for past favors, we are

Very truly yours,

JC/ES

EDISON STORAGE BATTERY CO.

Per

WM H. JANVIER
PRESIDENT
OWNERS-OF-B.F. ALLEN & CO.
U.S. AGENTS FOR
BEECHING HILLS
SHEPHERD DENTIFRICE

ESAC
HERBERT FISK
TREASURER

WM MCKINNEY
SECRETARY
TELEPHONE 102 SPRING
CABLE ADDRESS
PEARL NEW YORK

CHICAGO
309 & 311 WEST WABOLTH ST
CHICAGO
186 PURCHASE ST

WALTER JANVIER

U.S. AGENT FOR
PEARS' SOAP
STONES LINE JUICE
FIXIT

417 & 421 CANAL STREET

NEW YORK

Boston, Mass.

Mr. Thomas A. Edison,
West Orange, N. J.

Dear Sir:-

A letter has just been forwarded to me by my brother's former office in New York stating that the annual meeting of the stockholders of the Edison Storage Battery Co. will be held at the office of the company West Orange, Monday November 4th at 12 noon. Your Secretary requests that I fill out and forward proxy to you if I am unable to be present.

My brother, W. R. Janvier, formerly doing business at 365 Canal St., New York, died on January 29th, 1911, and I was made executor of his estate. I found among his securities one bond of \$1000 of the Edison Storage Battery Company and five shares of stock, and I as executor of his estate, am filling out the proxy and will ask you to kindly act for the estate.

My attorneys, Messrs Oudin & Oakley of 45 Broadway, advise me that I should sell the bond and five shares of stock in the Edison Storage Battery Co., and they, acting for me in making return to the Comptroller of New York, valued the bond at its face value of \$1000, and the five shares of stock at \$2 per share. I am anxious as the executor of my brother's estate, to sell this bond and five shares of stock, and my attorneys advise that I should get the face value of the bond with accrued interest, and \$2 per share for the stock. The question is, will you take up the bond and five shares of stock at the above named price. Two brokers here in Boston have tried to

[ON BACK OF PRECEDING PAGE]

Say
Don't sell your bonds shares
See Mr. Cant he will tell
you about the Co which
is now very prosperous

WM R. JANVIER
PRESIDENT
OWNERS-OF-S.F. ALLEN-ED.
AGENTS FOR
BEECHAM'S PILLS
SHEPHERD'S DENTIFRICE

HERBERT FISK
TREASURER

WM MCKINNEY
SECRETARY
TELEPHONE 1028 SPRING
CABLE ADDRESS
"PEARS" NEW YORK

WALTER JANVIER

U.S. AGENT FOR

PEARS' SOAP
STONES LIME JUICE
FIXIT

417 & 421 CANAL STREET

NEW YORK

CHICAGO
309 & 311 WEST RANDOLPH ST.
BOSTON
186 PURCHASE ST

#2...T.A.E.

dispose of the bond and stock for me, but they have not as yet found a purchaser. An early reply will be fully appreciated by

Yours respectfully,

Estate of Walter Janvier,

W. R. Janvier - Exr.

WMJ/R.

F. S. The five shares of stock above mentioned are made out in the name of W. R. Janvier. In explanation of this will say that as a youth he assumed the letter R as middle initial, he having been christened by his parents as Walter Janvier. For a number of years he signed all legal documents W. R. Janvier, but for several years the latter part of his life he signed all checks and legal documents Walter Janvier. I give you this explanation so that you will know that W. R. Janvier and Walter Janvier were one and the same person.

Mr E. -

The first of the 75- $\frac{1}{4}$ "
Loading Machines is in work
at Baiting Co.

Writes Jim

They are well pleased
with it. Everyone in loading
room says it is the best
machine they have -

Some ~~more~~ more machines will
be sent on Monday. & 12
tired up + put up with jump
sacks over them. If the
tarp racks come in as promised
these + machines will
go into service about Wednesday.

The catchers & tarp racks
are the only things holding
us up + we are rushing the
manufacture of them.

12-13/12

45000.
Answer
A. I. CLYMER
VAN WERT, OHIO

December 19, 1912

Edison Storage Battery Company,
Orange, N. J.

Mr. Wm. H. Meadowcroft, Secty.,

Dear sir :

Referring to the special meeting of stockholders of the Edison Storage Battery Company, held at the Company's office in West Orange on 10th instant, may I ask you to very kindly inform me what action was taken upon the several subjects under consideration ?

I should be glad, also, to know what amount of unfilled orders you have on hand and what recent monthly profits have been made ? (Mr. Miller has given me this detailed information in the past, in which I am always greatly interested.)

Are you in position to advise me, confidentially, what arrangements have been made for furnishing any electric carriage manufacturer or manufacturers with the battery during the coming season ?

I will also ask what are the principal uses for which the battery is at present made ?

If new buildings are to be constructed, what will be the percentage of increased capacity ?

Awaiting your reply with much interest, I am

Very truly yours,

P.O.Box 351

A. I. Clymer

[ON BACK OF PRECEDING PAGE]

Harry

Earnings are running about 250,000
monthly = ~~The stockholders~~ send him
copy of what stockholders authorized
= ~~order~~ We have an order from the
Ford Auto Co for about 4 million
dollars worth of battery per year
for their new self starter. They build
next year 150,000 autos. I am
advancing the money ^{for building & reaching} ~~for building & reaching~~
Cash ~~getting battery~~ ^{for building & reaching} The Co
is allowed to make 10% net from these
profits they pay for the reaching ^{or building}
The principal use for battery is
trucks, train lighting & storage
Battery Cans - Outpost now is
\$100. A4 per day we have machinery
1/2 furnished to go to 1000 daily
the Ford order is for 1500 per day
additional - orders on book are
off & every one can buy
this information is strictly Confidential

fill in

62110
A. I. CLYMER
VAN WERT, OHIO

December 30, 1912

Edison Storage Battery Company,

Orange, N. J.

Mr. E. F. Miller, Treasurer,

My dear sir : I wrote the company on 19th inst.,
requesting certain information, and have received no response.

Noticing in the circular letter of 4th inst., calling a
special meeting of the stockholders, that same was signed
"Wm. H. Meadowcroft, Secretary," in your familiar hand, if I
mistake not, I thought that perhaps my letter should properly
be address to the Secretary for reply; however, receiving no
answer up to the present time, I feel like writing to you direct,
as Mr. Meadowcroft, having only recently taken up the duties
of Secretary, may not know to what extent you have so kindly
informed as of the details of the business, in which I am greatly
interested. May I ask you to kindly let me hear from you,
Mr. Miller, with reference to the matters toucht upon in my letter ?
It will give me the satisfaction that your letters have always renderd
and I shall await your favor with much interest. Wishing the
company and all connected with it all possible prosperity in the
New Year, I beg to remain

Very truly yours



File
August 7th, 1913.

Quigley Furnace & Foundry Co.,
Attention Mr. W. G. Quigley, V.P.,
Springfield, Mass.

RAB-9-876

Dear Mr. Quigley:

I am enclosing herewith memorandum just received from Mr. Edison. Will you kindly note and return to me.

From the tone of your letter of August 4th it appears that you are sparring for time. According to Mr. Edison's memorandum your men agreed to proceed with the work if we would furnish canvas to cover the work. There is no reason in the world why this cannot be done. Mr. Edison does not wish to relieve you of the responsibility in connection with the building of the furnaces, but will do all we can to assist you in seeing that fire clay or bricks will not be ruined by rain; will furnish all tarpenlins necessary to cover them and will also assist you in covering them should a storm come up and to furnish any labor necessary to do this.

It was through my honest efforts that you secured this job in the first place, as it was Mr. Edison's wish that I should go ahead and employ enough help to erect these furnaces ourselves. Is it your intention now to go back on your faithful promise to me to see that these furnaces would be in operation at a certain date? This is more serious than probably you realize, and hope that you will make every effort to rush this work through.

Mr. Edison makes mention of holding up check for part shipment, but I will see that this will go forward to you and hope that you will make every effort at your end of the line to assist me as well as I am trying to assist you here. Please bear in mind that I have a great deal to contend with here and I had figured that I washed my hands entirely of the furnace responsibility when I turned it over to you, knowing that you were fully capable of taking care of the situation, and feel after receiving this letter you will get your men to work and get started on the job.

Yours very respectfully,

EDISON STORAGE BATTERY COMPANY,

V. P. & Gen. Manager.

SPRINGFIELD, MASS.

NEW YORK N.Y.

CHICAGO, ILL.

QUIGLEY FURNACE AND FOUNDRY CO.

SPRINGFIELD, MASS.

FURNACES FOR ALL INDUSTRIAL REQUIREMENTS

COMPLETE FURNACE EQUIPMENT.

FOUNDERS & MACHINISTS

SPRINGFIELD, MASS. Aug. 8, 1913.

CABLE ADDRESS "QUIGFUR"
UNIVERSAL A.S.C.
AND WESTERN UNION
CODES USED

Phone 205

Mr. R. A. Backman, Vice-Pres. & Gen. Mgr.,
Edison Storage Battery Co.,
Orange, N. J.

My dear Mr. Backman:

Your letter of the 7th inst. with note from Mr. Edison received, and we are afraid that you do not exactly understand the conditions or you would not accuse us of not doing everything we can to facilitate the completion of the furnaces. In fact, we have turned lots of corners in order to anticipate the completion of the work.

We received your order on June 11th. We were held up fourteen days or until June 25th awaiting information from you. The delivery specified was six to twelve weeks, making Sept. 17th the date of completion. Adding the fourteen days lost it would bring the completion of the furnace to Oct. 1st if we took full advantage of the time, but unless something unforeseen occurs we should have the furnaces completed by Sept. 17th, as you know we have shipped practically all of the material necessary to keep the men busy. We had our man on the job with our Foreman Mason, and owing to the condition of the building could not start the brick work, and were obliged to send him elsewhere. The builders who are erecting the building have lumber and material strewn all over our foundations, making it impossible for us to haul in the brick, and our Mr. Rockefeller advised us yesterday that it was necessary for him to knock off work until Monday. This delay, as you must know, costs us

*Chairman is Mr. Backman's brother -
Ked them
running the firm long -*

SHEET No. 2 QUIGLEY FURNACE AND FOUNDRY CO.
TO E. S. B. Co.

money, and we would much rather have our men busy.

We do not want Mr. Edison or yourself to feel that we are not doing all that we can, and we believe that if he understood the conditions he would not have written you such a note, as we must take exception to the statement that "you have to keep a sharp watch on us and that we will take advantage of you", as all of the delays up to this time have been caused by yourselves.

We instructed our engineer to go ahead with the understanding that you would keep the materials covered and protect them from the weather.

Would also call your attention to the fact that although our contract calls for you to unload the material and place same adjacent to our foundations, which was not done, that it was necessary for us to get a team and stone boat and haul the material a considerable distance, which I believe our Mr. Rockefeller took up with your company with the understanding that this was at your expense.

took care of this problem

I agree with you that you should not be bothered with these matters, and as far as our work is concerned, in spite of all of the delays to date, if your company will co-operate with us we will have no trouble in completing the work within the time specified in the contract.

Regarding the payment, would say that we received the check and note covering same, for which we thank you.

We beg to quote below extract from Mr. Rockefeller's report of the 7th inst., which explains matters:

"As per my phone conversation with you to-day, I will be delayed two or three days or until the roof trusses are raised. Therefore, I sent Mr. Ingram (our Foreman Bricklayer) to Springfield tonight."

FORM 75 2-22-19

SHEET No. 3

QUIGLEY FURNACE AND FOUNDRY CO.

TO E. S. B. Co.

I fully appreciate your kindness in throwing this order to us, and assure you that we have done and will do everything that we can to help you, and I wish that you would personally investigate and set us straight with Mr. Edison.

Yours very truly,

QUIGLEY FURNACE & FOUNDRY CO.

W. S. Quigley
Vice-President.

WSQ/JM

Durand
Hudson
Mr. Edison. Bates -

Nov. 30, 1914

It is the established policy of this company ever since the days of Gilmore that salesmen such as Hudson Durand etc are not allowed to know the profit or losses of their respective departments.

It seems to me that if we have enough confidence in a man to give him the business of the department to take care of he is responsible enough to know how he is doing. I can see no valid reason for his not knowing profit or loss and can see a number of reasons why he should.

What is your opinion? C.E.

EDISON STORAGE BATTERY CO.

MEMORANDUM

September 10th, 1915.

RAB-11-430

Mr. Edison:

Harry Miller
Remember this - wired glass
to sell it *E*

Mr. Warren Noble, Vice President of the Frantz Premier Co., Cleveland, Ohio, called this morning and informed me that they were building a large factory and were undecided on the glass they were going to use and did not know whether to use wired glass or plain glass. I told him that in case they decided to use plain glass we could make them a very attractive proposition, as Mr. Edison had some for sale. He told me to write and tell the approximate amount of glass we had and all the glass you have at the Laboratory that you are now taking out. Please have the party responsible for this, communicate with Mr. Noble, as he may be in the market for same.

R. A. Bachman.

EDISON STORAGE BATTERY CO.

MEMORANDUM

January 11th, 1916.
WGB-2-128

Mr. Meslowcroft and file:-

Here's the letter from Cutting which explains
all about the records that Mr. Deostur was talking about,
and about which I wrote.

W. G. BEE.

Enclosures -

Mr Edison

Evidently, the decision rests with
you as to whether you want to duplicate
these records. If you don't, we could write & say
that on account of risk in transportation &c. &c.
you would not want to chance it. Meslowcroft.

Better say it would
be risk. and

WGB

6522

[ENCLOSURE]

THOMAS A. EDISON
PRESIDENT

W. G. BEE
VICE PRESIDENT

ARTHUR MUDD
SECRETARY

M. F. MILLER
TREASURER

Edison Storage Battery Supply Co.

Main Office Orange, N.J., U.S.A.

San Francisco, Cal., U.S.A.

January 5, 1916

E. M. CUTTING, MANAGER
WESTERN BRANCH
441 GOLDEN GATE AVENUE
Phone Market 4511

TRADE MARK
Edison
G. Edison

Mr. W. G. Bee,
477 Main Street,
Orange, N. J.

IN REPLYING ADDRESS THE
COMPANY AND REFER TO

SP2-12

ALL OFFERS OF THIS COMPANY ARE SUBJECT TO THE FOLLOWING CONDITIONS: 1. STANDARD PHYSICAL AND CHEMICAL SPECIFICATIONS SUBJECT TO CORRECTION. 2. PRICES SUBJECT TO CHANGE WITHOUT NOTICE. 3. ALL PRICES AND DELIVERIES UNDER OTHERWISE SPECIFIED ARE F. O. B. ORANGE, N. J. 4. THE COMPANY SHALL NOT BE LIABLE BY REASON OF ANY DELAY IN MAKING DELIVERIES DUE TO STRIKE OR OTHER ACCIDENTS OR CAUSES BEYOND OUR CONTROL. 5. DELIVERIES FOR EXPORTATION SHALL BE ALLOWED UNDER SHIP WITHIN FIVE DAYS AFTER RECEIPT OF ORDER. 6. THE COMPANY DOES NOT ASSUME RESPONSIBILITY FOR LOSS OR DAMAGE IN TRANSIT.

My dear Mr. Bee:

I am returning herewith letter from you addressed to Mr. Meadowcroft written on Seattle Office Stationery, also letter from Mr. Meadowcroft to you under date of Dec. 6th., regarding soft wax records which are in the possession of Mr. Decatur of The Western Union Telegraph Company of San Francisco.

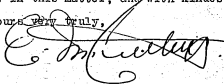
Have to advise that it has been very hard for me to get hold of Mr. Decatur and after several attempts I finally got him on the telephone and he told me that ordinary dictating machine records were made of The Morse Code Talk which passed back and forth between various operators at The Telegraphers' Banquet given to Mr. Edison in San Francisco.

These records have been very carefully preserved, packed up and have been at among the valuables of The Western Union Telegraph Company of San Francisco, but they would be shipped to Mr. Edison at Orange if he desired to have same for reproduction in more permanent form, but very naturally The Western Union Company would like to receive the original records back, or a least a set of the more permanent records which might be made up.

Mr. Decatur very clearly stated that neither he personally nor The Western Union Company have any particular wish in this matter; in other words they are not requesting that permanent records be made from these soft wax cylinders, but naturally they look upon these cylinders as possessing considerable historic value to them, but they are perfectly willing to furnish same to Mr. Edison but would like the originals or duplicates or both.

At your convenience kindly advise any further action which you wish to have me take in this matter, and with kindest personal regards, I remain,

Yours very truly,



EMC:ES

[ENCLOSURE]

Encl. Address "Edison, New York"

From the Laboratory
Thomas A. Edison,

Orange, N.J. Dec. 6th. 1915

Mr. William G. Bee,
Edison Storage Battery Supply Co.,
441 Golden Gate Avenue,
San Francisco, Calif.

Dear Mr. Bee:

Please do not think that because I do not write oftener that I am forgetting you. We are so awfully busy around here that it is simply impossible to attend to our mail promptly. This is Saturday afternoon, and I am just trying to clean up correspondence that has been on my desk all week.

I showed the enclosed letter to Mr. Edison, but he doesn't seem to understand what it refers to. I suppose it is not necessary for me to say that I do not understand it, as I did not know any of the details that took place during Mr. Edison's visit to the Coast. I am afraid we shall have to ask you to make it very clear so that he will know just what is being referred to.

Trusting that you are feeling in fine shape, and with kindest regards, I remain,

Yours very truly,

CHAS. H. MANAGER
Edison Storage Battery Supply Co.

DEC 15 1915

441 Golden Gate Ave., San Francisco
MARKET 4511

Enclosure

[ENCLOSURE]

EDISON STORAGE BATTERY SUPPLY COMPANY
INTER-OFFICE LETTER FROM SEATTLE, WASH.

TO MR.

William H. Meadowcroft,

DATE NOV., 24th.

ADDRESS

Orange.

REFER TO

SUBJECT

REPLYING TO
YOURS OF

My dear Meadowcroft:-

Mr. Decatur of the Western Union Telegraph Co., of San Francisco spoke to me the day I left San Francisco to take up with Mr. Edison the question of making duplicate records from the records that they took on Edison Day. I understood him to say that he had the cylinders, -all soft wax records business dictating machine type. He told Mr. Edison that he would have duplicates made and send them to him, but when he commenced to investigate, he found that they would cost more than he could really afford personally as he had no fund to draw from. He asked my opinion about it, and I told him that if he thought Mr. Edison wanted them, we would be glad to duplicate them ourselves. He has the records all packed, and will ship them to you, if he has not already done so. Will you take this up with Mr. Edison and write him direct at the San Francisco Western Union Telegraph Office.

OFFICE OF MANAGER
Edison Storage Battery Supply Co.
DEC 15 1915
441 Golden Gate Ave., San Francisco
PHONE MARKET 421

Kindest respects.

H. B. Co.

3838

January 26, 1916.

Mr. Edison:

I am now ready to take up the matter of the Walker truck representation, for selling to the Government.

I suggest that you drop Mr. Insull a note, at your convenience, telling him you think it would be a good plan. We can do it under the name of Mr. Moran, who is with me now, and let the whole transaction be in his name, so as not to prejudice us by the truck makers against the Edison Battery by such an arrangement.

I want to go aggressively after this work, and am taking it up with Ward along the same lines for the smaller trucks.

The specifications are being written at the present time, covering the electrical trucks for the Post Office Department, and I want to hit the iron while it is hot.

I would write the letter for your signature, except that Mr. Insull's connection of many years with you is of such nature as to render it better, I think, for you to word it in your own language.

M. R. HUTCHISON.

Say
Insull-

6768

My Engineer Hutchinson wants
your Walker Co to give him a
chance to put them with the Post
Master Genl a deal Employing
Walker trucks, & Ward trucks
of the small size & think he
can land a large order if you
make a deal with him a little time
to put it thru - 2

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

January 27, 1916
AM-8-607

Mr. Edison and file:

I have ready for your inspection statements for the months of September and October.

Mr. Meadowcroft informs me that you are very busy and that inasmuch as the results shown by the statements are good, he suggested that I write you and give you a short summary. When convenient to you Mr. Bachman and myself will be glad to go over the statements with you.

September sales amounted to nearly 14000 A4 equivalent with a total value of over \$156,000.00. The net profit was slightly over \$25,000.00.

For October the sales were over 20,000 A4 equivalent and the value over \$218,000.00. The profits were over \$45,000.00.

In October we made a bookkeeping entry of \$19,157.98 to adjust the value of the Chemical Works account as of February 28, 1914 which makes our statement for October show an apparent profit of \$64,389.81.

Our net surplus on October 31st was \$514,666.53 and if we add to this amount the surplus of the Chemical Works on this date of \$8126.36 we will have a surplus on the combined balance sheets of the Storage Battery Co. and the Chemical Works of \$522,792.89.

The cost of the cells remains surprisingly uniform but we are getting a little cheaper cost now on account of the lower cost of soda solution as compared with potash solution.

ARTHUR MUDD.

January 31st, 1916.

Mr. Edison:

I hand you herewith an extract from a communication received from Mr. Maurice B. Fox, dated January 16th, in which he advises as to the satisfactory business being done by Edison Accumulators, Limited.

By referring to the last paragraph of this extract, you will note that on account of having a successful year, Edison Accumulators, Limited, expect to declare a dividend. If this is done, it will be the first time since the organization of the company was effected.

WALTER STEVENS.

Encl.

W S
O

C.C. to Mr. H.G. Thompson.

[ENCLOSURE]

EXTRACT FROM LETTER RECEIVED FROM MR. MAURICE E. FOX,
DATED JANUARY 16TH, 1916.

Since my last report to you, there has been nothing remarkable to note here, except the gratifying number of sales of accumulator vehicles. Since that time, we have sold about fifteen large trucks and ten small industrial trucks. During the last few weeks, there have been sold an average of four vehicles per week:

Some time ago, negotiations were entered into with one of the omnibus companies of London for the supply of an Edison battery 'bus. This has been built, and although the Scotland Yard regulations specify that a passenger-carrying vehicle must not weigh more than six tons fully loaded, we managed to keep down the weights so as to come within the requirements. Unfortunately, however, when the completed vehicle was offered for inspection, the Police took exception to the form of steering gear, width of axles, in fact, which involved practically a change in the design, - so that we found it impracticable to get the vehicle past them. It looks, therefore, as if London's streets must wait for some future date before they will see an electric omnibus. In the meantime, the body-builder threatens to sue for the price of his body, which is useless to us, so I anticipate Messrs. Edison Accumulators, Ltd. will have a good 'bus body for sale at a low price. The outcome of this affair is unfortunate, as important business was expected after this first vehicle was put into operation.

Edison Accumulators Ltd. have had quite a successful year, and it is said a dividend will be declared as a consequence.

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

April 29, 1916
AM-8-3439

Mr. Edison and file:

Sometime ago you spoke to me regarding the Mine Lamp situation and seemed to feel that we had not handled the situation properly and charged a high enough price for the outfit.

I have gone carefully into the matter and have found out that the reason why we did not make a greater profit heretofore was due largely to the fact that we were manufacturing in more or less limited quantities. By reason of this the Assembling Department was not able to cut down their cost as they are now doing by having a large quantity coming through and keeping the operators specialized on one kind of work. Considerable labor was also necessary in fitting the various parts which is now being eliminated by new dies and bending fixtures. Minor changes in construction have been made and simpler methods used which will have a tendency to reduce the cost.

We have also had to replace some of the parts such as cords and springs for holding the bulbs in the reflector.

Due to low production we have not been able to get a very good line on the cost on account of the parts being taken from one operation and group to another. In some cases without the necessary records being secured. All this has practically been overcome now and I see no reason why the Mine Lamp should not be a very fine paying proposition at \$11.00 per lamp each list, less maximum discount of 40% or \$6.60 each net and providing of course we continue to manufacture in large quantities.

We are now using the Toman metal container for holding the cells instead of a Monel Metal one which has reduced the cost materially.

I had our Cost Keeper take off the cost of the complete outfit and computing the overhead at the present rate of 14% and the total factory cost was \$3.78 per outfit.

The following figures represent my estimate of profit on a

PRODUCTION OF 100,000 LAMPS

Factory cost (which will be reduced)	\$3.78 each
Shipping	.04 each
Advertising (\$2000 per year)	.02 each
Selling & Service (\$5000 per year)	.06 each
Total Cost to Make & Sell	\$3.90 each

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

-2-

Selling Price

\$11.00 each list Less 40%

\$6.60 net

Cost to make and sell

3.90 net

Net Profit

\$2.70 net per lamp

On a production of 100,000 lamps complete
per year this would amount to \$270,000.

ARTHUR MUDD.



EDISON STORAGE BATTERY COMPANY

MEMORANDUM

July 8th, 1916.
BAB-9-764

Mr. T.A. Edison
Mr. Chas. Edison
Mr. A.G. Emery:

Regarding the windows which are now being placed in the Storage Battery buildings. It appears that we will have to give more ventilation than we had originally figured on.

Yesterday afternoon at 4 o'clock the men in the Tool Room unanimously packed their tool chests and put on their coats and hats and were ready to leave the department in a body, not in the form of a strike, but every man decided he would quit and leave the place on account of the ventilation we had promised them. I informed them we would ventilate alternate windows top and bottom. They positively refused to work under these conditions and demanded we ventilate both top and bottom, giving them 100% ventilation. They maintained that the general attitude with other manufacturers is to better the working conditions in a factory and from the present appearance it would mean we are not working on the same lines.

This same condition prevailed in the Screw Department and also in the Punch Press Department. In as much as we have been able to free ourselves from labor trouble here up to this time I would strongly recommend not to do anything to antagonize the organization, especially at this time. I would recommend that we make arrangements to swing the windows both top and bottom, giving 100% ventilation. The windows in all of the new buildings give 50% ventilation the same as we had contracted for with the exception that all the ventilation takes place in the upper sash, the lower sash being permanent. This is the part the men object to, as they want to have part of lower sash and also part of upper sash open so as to give proper ventilation.

I placed a notice in the Tool Room this morning and informed them I would personally see that the windows would be hinged both top and bottom in this particular department. The contractor informed me yesterday he would pivot the lower sash on his own accord on the Ashland Avenue side. This would only leave two other sides for the company to pay for.

It was generally agreed we would make arrangements to swing every other window, but the demonstration yesterday afternoon proved conclusively we would have to go further than this unless it is your desire to fight the situation.

A prompt decision is requested on this in as much as Mr. Emery is about to execute a contract, which I understand has not been signed up to this time, for the windows.

R.A. BACHMAN

*Mr Edison says
he allows to other
manufacturers with
Mr Bachman
WMM
7/9/16*

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

July 12th, 1916.
EAB-9-791

My dear Mr. Edison:

file
When Dr. Greenley left the Edison Storage Battery Company I asked you for a recommendation for him, as I believed he was entitled to one.

At that time I had a further talk with Greenley and had reasons to believe he was not going to South America as he told us he would, and I took the liberty of holding up the recommendation for further developments, and told him I had not been able to see you to get a recommendation for him, but I would mail it to him if he would give me his address. He could not give me his address and for this reason I decided to wait until I heard further from him.

I learned through Mr. Hutchison today that Greenley is in London and is employed by the Vickers Company. I am therefore returning the recommendation to you, as I do not think he is entitled to such a valuable document coming from you.

I hope this meets with your approval.

Fierce!
mm
Robert A. Bachman

EDISON STORAGE BATTERY CO.

Orange, N.J.

August 22, 1916.

Musnot Box

Mr. J.P. Lommet,
Orange, New Jersey.

Dear Sir:

1. Several years ago you forwarded to me originals and translations of proposed arrangements between yourself and the firms of Penhard-Levassor and Delaunay Belleville, for the exploitation of Edison Storage Batteries, submarine cells excepted, in France, the French Colonies and Belgium. These agreements you wanted me to approve.

2. The European War broke out about that time and I have never taken the time to read and analyze the said agreements. I will do this, however, by the end of the war, realizing that these companies are not able to carry the proposed arrangements through during the war conditions.

3. In the meantime, and until this permission is revoked by me or by the Edison Storage Battery Company, you are hereby authorized to sell Edison Storage Batteries, except submarine type cells, on an exclusive sales right basis such as is enjoyed by Edison Accumulators, Ltd., with which you are familiar, it being understood that the discounts to you for this French right are the same as to Edison Accumulators, Ltd., viz: 33% and 5% f.o.b., New York on regular cells and parts, potash electrolyte excepted, and 40% and 2% f.o.b., New York on Type K-8, K-20 and mining lamps, all cash against shipping documents in New York.

4. You also assume responsibility for guarantees and, in fact, conduct the business exactly as per the arrangements with the Edison Accumulators, Ltd.

5. It is understood that the Edison Storage Battery Company or myself have the right to revoke this temporary arrangement at any time, in writing or by cable.

6. When the war is over and you are ready to go ahead with Delaunay-Belleville and Penhard Levassor, if the proposed arrangement is satisfactory to me, I will accept these agreements and enter into a regular contract with you in the French and Belgian business.

Mr. J.F. Monnot,

-2-

August 22, 1916.

7. The list of the French Colonies, etc., is as follows:

Algeria
Corsica
French West Africa
 Senegal
 French Guinea
 Ivory Coast
 Upper Senegal
French Congo
Tunis
Madagascar
Socail Coast
Comoro Islands
Heanion Islands
French Indo-China
St. Pierre and Miquelon
French Guiana
Martinique
Guadeloupe
New Caledonia
Tahiti
Gambico Archipelago
Morocco

Respectfully,

EDISON STORAGE BATTERY COMPANY

Thomas A. Edison, Pres.

Arthur Hadd, Sec'y

Witness
R.H. Hutchison

Accepted
J.F. Monnot

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

August 31st, 1916.
RAB-9-1056

Mr Pederson:

I am enclosing herewith letter from the Department of Health of the State of New Jersey, also copy of law relating to pollution of fresh water streams, with reference to pollution of the Second River running near the plant of the Battery Company.

Kindly note letter and return, and take such action as is necessary

R.A. BACHMAN

[ENCLOSURE]

DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY

Trenton, August 30, 1916.

Edison Storage Battery Company,
Mr. Robert A. Bachman, General Manager,
West Orange, New Jersey.

Dear Sir:-

It was reported by a representative of this Department, after making an inspection of the Second River, one of the fresh waters of this State, that on the premises owned and occupied by the Edison Storage Battery Company, West Orange, New Jersey, there is polluting material consisting of trade wastes from the manufacture of storage batteries draining and entering into the waters of the said Second River, and also discoloring the water for some miles.

In an endeavor to secure the abatement of all existing pollutions in the fresh waters of this State, this Department desires your cooperation, and we would respectfully request that you take such means as you may deem advisable in order to prevent any further pollution occurring from said premises into any of the fresh waters of this State.

Will you kindly give this matter your immediate attention, and inform this Department upon the completion of the work?

Enclosed you will find a copy of the law relating to the pollution of the fresh waters in this State.

Thanking you in advance for your cooperation, I am,

Very truly yours,

(signed) J. C. PRICE

Director

CGW/MAC

ENCLOSURE

LP

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

September 1st, 1916.

AP-23-661

MR. R. A. BACHMAN:-

In answer to your memo regarding the pollution of the Second River, would say that the following changes will reduce the visible impurities, allowing a dilute solution of sodium sulphate and sodium carbonate to enter the brook.

1. Instead of passing the copper wash water from the cranes in the old crane room over the iron drillings, the sump which holds the iron drillings should be used for precipitating with soda ash and the copper mud pumped to the filter press which is to be installed for similar work from the new crane room.
2. The drainage from the floor in the old crane room should be run into the above sump if possible. There is a large volume of this solution but it is very low in nickel, copper and iron contents.
3. The over-flow from the ribbon machines contains appreciable amounts of nickel, in a form unsuitable for easy recovery, due to the presence of ammonia. The most desirable change would be a solution containing no ammonia salts. The nickel could then be recovered as in the flake plating. Experiments can be started to develop such a solution. The solution as it runs off now, will occasionally give a small yield with soda ash. This treatment may render it immune from further precipitation in the brook. In either case a sump would be required to reduce this source of pollution to a minimum. There is one large sump in this room not being used, except as an overflow from the iron. When this iron recovery system is removed, this sump may become available.
4. The method of removing the so called iron from the sludge by washing, allows a basic sulphate of iron and nickel to flow into the brook. This material ought to bring a good price on the market. A magnetic separation of the nickel from this sludge should be looked into before elaborating a system of settling tanks, filters, etc. All material of any value in the anode sludge boxes would be magnetic and the portion which spoils the contacts between the small particles of nickel would be removed in a dry state in one operation. This non-magnetic material would also have a good nickel value.
5. The overflow from the part plating room, apparently has nothing feasible to recover, consisting mainly of acid. Besides either letting it run in the brook or sewer, the only other outlet, if necessity should arise, would be to build a cesspool to let the most objectionable portions drain through the soil.
6. The outlet from the drain pipe from the second and third floors of the new plating building, should be placed so that it runs into the sump. (This refers to the drain from the copper refining department, and is only used when washing down the floor.)
7. The filter bags underneath the settling tanks for the mud from

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

- 2 -

R. A. Bachman. (Cont'd)

the separating wash are not efficient enough to take care of the large amount of water which occasionally comes down. This causes an overflow of copper mud into the brock. If we are to stop all precipitates from getting into the brock at all times, including the copper and nickel recovery sumps, some changes should be made on the acid bags, and if the proposed increased pumping and filter press facilities do not eliminate all sediments from the brock, an additional de-watering proposition can be taken up if necessity arises.

The losses from this source are very small and any installation would not pay for itself. It should be determined whether brushes on the copper baths would reduce the strain on the recovery plant. Certain mechanical difficulties must be overcome before these brushes could be successful. The proposed substitution of lime for soda ash becomes more difficult if the pollution of the brock is to be considered, and the saving from this change may have to be given up. If the price of soda ash comes down to normal, the use of lime is not so attractive.

Will await your instructions.

Arthur Pedersen

ARTHUR PEDERSEN.

[ATTACHMENT]

November 3d, 1916.
RAS-9-2142

Mr. Pederson:

The State Board of Health is again after me on account of pollution of streams. Will you kindly let me know what progress has been made in order to stop this nuisance. The situation is becoming alarming now and it is necessary for us to take immediate steps to take care of our waste so as not to do any more pollution of streams.

R.A.BACHMAN

[ATTACHMENT]

MEMORANDUM

Mr. R. A. Bachman: *Mr. Cratt*
Here you are what is holding them up
 Nov. 4, 1916
 AP-8-7701
 In answer to your memorandum regarding the pollution of streams, would say that the stand for the filter press has been erected and we are waiting for the press. Shipment was originally promised on the 25th of October but the latest urgency place the date of shipment on the 18th of November. I have taken up the matter with Mr. Norton and immediate steps will be taken to remedy this condition as much as possible till we get the press. *Bachman*

A. PEDERSEN.
R. Pedersen
 NOV 10 1916
 RECEIVED A 11

*See our letter to
 Mr. Currey Sep. 1 1916, 1916*

EDISON STORAGE BATTERY CO.

ORANGE, N.J.

EDISON CHEMICAL WORKS DIVISION

SILVER LAKE, N.J. 9-11-16

OK mm
Mr. Thomas A. Edison
Laboratory
Orange, N. J.

Re: I by H. U. S. Pat.

*Meadowcroft
given we can
rece 1000 lbs
month - 40 cents
EB-4*

Dear Mr. Edison:

We received a few days ago a letter from the firm of Stanley Jordan & Company, 116 Broad Street, New York, dated August 22, on which you have made the notation asking whether we can spare any iron for iron by hydrogen.

In reply, would say that we have talked with Mr. Meadowcroft relative to this matter, and have explained that we ought to be able to give over for that purpose 1000# per month, and possibly by another month, we ought to double this, or even do better. We have the new E type furnace running about one week, and are repairing one of the old furnaces, which should be done shortly, and thus placing us in pretty good shape to supply considerable material.

Of course, at the present time, we are making as much iron as possible for the Edison Storage Battery Company, in order to get up our stock. It will depend upon what amount of stock we want to carry, before we can determine how much iron by hydrogen for pharmaceutical purposes we can make.

We enclose herewith letter from above firm.

Yours very truly
Pruder

YV/K
1 enclosure.

EDISON STORAGE BATTERY CO.

ORANGE, N. J.

Carbolic

EDISON CHEMICAL WORKS DIVISION

SILVER LAKE, N. J. Sept. 22; '16

Mr. Thomas A. Edison
Laboratory
Orange, N. J.

Noted 20/9

Dear Mr. Edison:

Some days ago we received copy of letter dated September 9; from Mr. Kammerhoff to Mr. Mambert; subject: Consumption of Steam - same referring to measurement of steam used by us and manufactured by the Carbolic Acid Mfg. Division. On this letter was your notation as follows: "Why not settle this thing once for all".

In reply to this memorandum, we submit to you copies of our letters to Mr. Kammerhoff in regard to the proposition. We also return to you the original letter of Mr. Kammerhoff, with your notation; to which is attached copies of the letters that Mr. Kammerhoff has written us. We note that he has not sent any copies of our letters to him. Our letter dated July 3rd goes into the matter quite thoroughly; and explains our position and also what we had done, up to that time, in getting steam consumption and also in getting a meter.

Since July 9, we installed a 3" meter; but we immediately found it too small to measure all the steam we were then using; together with that used by the Phenol, Resin & Wax Division. We immediately ordered a larger mechanism, but owing to various delays, we did not receive this until about September 1, when we immediately installed it, and the meter is now in operation and

measures all the steam we are using, together with the steam used by the Phenol Resin & Wax Division. Each day the meter is read by a representative of Mr. Kammerhoff and our own man, and this morning Mr. Kammerhoff informed me that as far as he could see the meter was operating satisfactorily to him.

He states, however, that the steam meter measuring steam for the Aniline and Phenol Divisions has been out of order for about a month, and on this account, it will be difficult for him to judge the correctness of our meter.

In this connection, would say the steam meter installed is a General Electric meter, and in all probability is extremely accurate, and the readings made by this meter we shall consider accurate and final.

If you read the attached letters which we have written to Mr. Kammerhoff, you will see that the matter of measuring steam was not neglected by us. As explained, we kept a very accurate measurement of the amount of condensed steam, and from this measurement, we made up a statement each month of the amount of steam used. This we submitted to Mr. Kammerhoff and he billed us. We believe that while this method is not absolutely accurate, it was sufficiently so under the circumstances.

In regard to the payment of additional bill of Mr. Kammerhoff, dated July 31, amounting to \$1149.06, we would say that we do not feel justified in passing this until we have a month's reading from the steam meter now installed. We believe that this will show that our calculations for steam consumption were approximately correct, and this bill for additional is in error. However, should the steam meter show that our calculations were less than actual, we

are ready to pass the bill or adjust the matter.

Mr. Kammerhoff, in paragraph 4, infers that we have put off measuring steam because we feel we were using more than we were being billed for, and therefore lessening our charges. This is wrong. We had no such intention at all, and this inference should be corrected at once. It may be Mr. Kammerhoff's idea to put one over on anyone he can, but it is certainly not ours. If this were the case, it would not be likely that we would at present put in a meter when we are using a hundred times more steam than we were in January.

It is very likely from the letter of Mr. Kammerhoff, with his former letters attached, that you might think we had not made any replies, as he very carefully attached his own letters, but ^{practically} says nothing about our replies, nor gives any copies of them.

As soon as we calculate from the steam meter the amount of steam we have consumed and check this against the calculations by the method we have used in the past, we shall take up the matter of payment of the bill of July 31st, and try to settle this matter of additional steam consumption.

Trusting the entire matter is explained to your satisfaction, and that we can adjust the matter without any further discussion, I remain,

Yours very truly

JWM:k

Alvin
Division Manager

CC - Messrs. Chas. Edison, S. B. Mambert, C. H. Wilson, H. Musk
and M. Kammerhoff. Clearing House.

September 23rd, 1916.
HAB-9-1152

Mr. Edison:

Regarding the attached letter from the Eagle Pencil Company, addressed to Mr. Hutchison, and your memorandum on same, I would recommend having a Tube Drawing machine built on the outside, charging the Eagle Pencil Company 25 per cent. profit on same.

In as much as the expense for development work was all borne by you they could consider themselves fortunate in getting it even at this price.

We could give them the approximate estimate of the cost of the machine if you care to have us do it. This would, however, only be approximate, due to the many changes in manufacturing conditions since the last machines were built.

Richard G. Bachman

*Bachman gave me the
approximate cost which
they could get it outside -
I guess I will charge 100% extra*

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

September 25th, 1916.

RAB-9-1170

Mr. Edison:

Regarding the attached correspondence from the Eagle Pencil Company and your pencil memorandum on same, I beg to inform you that the Tube Drawing machines built at the Laboratory cost the Storage Battery Company \$1,500.00, while the same type machine was built at the Storage Battery Company for \$825.00. I would recommend that you charge the Eagle Pencil Co. \$2,000.00 each, which would be a fair price for one of these machines. This will give you 100% over and above the cost.

Halvin A. Bachman

Meadcroft. Adv to Eagle Pencil Co. that the

*~~Machine is not a drawing machine for a machine~~
of \$825, an Edison Pencil Drawing Machine with 40% for overhead
~~and 25% profit~~ 60%*

[ON BACK OF PRECEDING PAGE]

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

Cost of a single machine made subsidy will
 be about \$1450. I should want
 to add 50% to the cost to help pay
 for our long ~~and costly~~ ^{expensive} experience.
 I would recommend that you ~~order~~ ^{order} the Edison Storage Battery Co. \$2,000.00 each, which
 would be a fair price for one of these machines. This will give you 100% over
 and above the cost.

Respectfully,
 J. W. Smith

September 26th.1916.

Eagle Pencil Company,
710 East 14th Street,
New York City.

Attention of Mr. Edwin M. Berolzheimer.

Gentlemen:

Your favor of the 21st instant in regard to tube
seaming machines was received by Mr. Hatchison and handed
to me.

Let me say in reply that the cost of a single machine
of this kind, made outside would be about \$1450.00. I should
want to add 50% to the cost to help pay for our long and cost-
ly experiments.

Yours very truly,

Edison Storage Battery Co.

THOMAS A. EDISON, PRESIDENT
ROBERT L. BACCHUS, VICE PRESIDENT
W. J. MILLER, SECRETARY
W. H. MEADOWS, TREASURER

TRADE MARK
Thomas A. Edison

ORANGE, N. J. U. S. A.

October 26, 1916

CABLE ADDRESS
"EDISON" NEW YORK

IN REPLYING
ADDRESS THE COMPANY
AND REFER TO

Mr. Thomas A. Edison,
West Orange, N. J.

Dear Sir:

At the request of Messrs. Thomas A. Edison and Charles Edison, stockholders of this Company, a special meeting of the stockholders is hereby called to be held at the Company's office, corner of Valley Road and Lakeside Avenue, West Orange, N. J., on Thursday, the 2nd day of November, 1916, at two o'clock P. M.

It is expected that the Board of Directors of this Company will meet at 10:30 A. M. on November 2nd, 1916, to authorize the issuance of bonds of the Company aggregating in amount Two Million Dollars, to be secured by a mortgage to the Fidelity Trust Company of Newark, N. J., Trustee, upon certain property of the Company, the said bonds or the proceeds therefrom to be used for redeeming outstanding bonds of the previous issue not yet paid; to enable the mortgage securing said previous issue of bonds to be discharged, to pay the Company's indebtedness on open account to Mr. Thomas A. Edison in whole or in part; to acquire and pay for in whole or in part certain land, buildings, and equipment now used by the Company; to place the Company upon a better financial basis by converting a part or the whole of its outstanding floating indebtedness into a bonded indebtedness; and to provide funds for such other purposes as the Board of Directors in their discretion may deem proper and advisable.

The principal object of the stockholders meeting hereby called is to take appropriate action with reference to said proposed issue of bonds and with reference to such other acts as the Board of Directors may do at said meeting.

Another object of this stockholders meeting is to cancel and rescind the authority given certain officers of this Company to enter into written contracts with Mr. Thomas A. Edison and Ford Motor Car Company by resolutions adopted at a stockholders' meeting of this Company held December 10, 1912, and to take such other action as may be necessary or advisable as the result of such rescission and cancellation.

If you do not expect to be present, will you not kindly send me a suitable proxy designating an agent to represent you at the meeting. A form considered suitable for this purpose is enclosed herewith, which, if satisfactory to you, should be dated, signed and witnessed.

Very truly yours,

Arthur Mudd
Secretary.

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

October 27th, 1916.

WAB-9-2101

Mr. Edison:

Regarding your memorandum of the 27th wherein you ask "How are you getting on with the cell recovering department. I get no reports."

In this connection I beg to inform you we have had considerable trouble in order to get material for the department of recovering active material, which is now being completed and is in operation, but not long enough to give you sufficient data on cost of same. Mr. Mudd has a man in this department and is collecting data on costs of cutting open cells and then from operation to operation until same is recovered and again put back into cells.

Regarding prices on rubber parts plant, I am getting out a detailed report of machinery required for the manufacturing of our rubber parts and will turn same over to Mr. Barry to get prices on same. I would like to make another trip to Trenton before this report is completed. As I told you verbally today that we could not depend on prices given by Stokes Company, in as much as they are running their place in an old fashioned way and have very little data on actual cost. The data that was collected was through some of their bills, on which I understand they added 20% due to increased cost of material at this time. I told them this is not what we are looking for and the next time I go to Trenton I will stop at the Throp Manufacturing Co. who are manufacturers of calendar rolls and rubber machinery.

I will get a fairly good idea of cost on rolls there.

Richard C. Bachman

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

November 20th, 1916.
EJR-23-1476

MR. W. H. MEADOWCROFT:

We are developing a very satisfactory and profitable business in connection with the sale of Storage Batteries for the operation of locomotives used in mine haulage service.

At the present writing the Pittsburgh Coal Company are in the market for twelve 5-ton locomotives and contemplate equipping each with 80 cells of type A-8. The H. C. Fricke Coke Company very shortly will issue specifications calling for eighteen locomotives - battery equipment optional. Should we succeed in getting the Fricke business it would result in the sale of 18 sets of batteries, each containing 80 cells type A-10. Even if we only secure half of the Fricke business and all of the Pittsburgh Coal Company's, the net value of the two orders to us would be \$38,000.00.

There are two men who are in a position to help us to a great extent in securing this business, and they are both staunch admirers of Mr. Edison. If we could secure for them, autographed pictures of Mr. Edison for them, I am very certain that it will help us very materially.

The two men in question are - Mr. Jos. Bryan, of the Pittsburgh office of the General Electric Co., and Mr. W. A. Chandler, Electrical Engineer of the H. C. Fricke Coke Co.

E. J. ROSS, JR.

Send Photos 11/21/16

Mr. Edison

Charles Edison
Dec 3.

Under the plan of permanent Engineering Organization which we are trying to put into effect, the condensite cabinet proposition is not correctly up to Constable whose work is to be almost entirely confined to phono mechanisms. I suggest Simpson for the time being carry on the condensite work.

Charles Edison.

All right

708

Dec 3

Mr. Hutchison

Under the plan of permanent Eng. Organization which we are trying to put into effect the condensite cabinet proposition is not correctly up to Constable whose work is to be almost entirely confined to phono mechanisms.

I suggest Simpson, for the time being, carry on this work alone.

Charles Edison.

~~Simpson is already making up with make other to get someone lined up~~
MON

Charles:

There is no doubt but that there is a lot of room for improvement in the Eng. Dept. But as long as Sam Person is in grade in the works I don't see how Sam goes to work & accomplish anything there. I see no real waste going on all the time. If I mention it, Ch. or somebody tells me E. & instruct me to keep my hands off it. I won't get through that a half dozen times and then come the justification of further efforts.

Sam Batting is going to have a damn right justification for Eng. Dept. Pretty soon we will have that all our good men.

Samille quits Saturday. H. H. Smith is said to be about to

quit. The funny part is, they all almost doubt that Salaries elsewhere. Parson Jones, whom the O.M. didn't like much, & who got out in due course, is now getting \$5⁰⁰ a week as asst. ch. Eng. of a Vehicle Mfg. Co. (Electric trucks or) somewhere in Ohio. Samille gets 40⁰⁰ a week & his moving expenses to Cleveland. Chrysler is making good on the job & got him for 50⁰⁰ a week in Juico.

If I had a good practical assistant - a man who knows how to handle & handle men, I would own him good. But I haven't got one man - Norton - & he is head over heels in Submarine Battery

As a matter of fact, I pay my
own office man over my
own pocket. Mr. E. let
him go last summer with
all the rest, & I have been
paying him his 25⁰⁰ a
month ever since. The
most of his time he spends
in Co. business.

Buttals all right. If
Mr. E. doesn't think the man
who is trying to handle
the Eng. end of all his cos.
and the Sat. is ~~not~~
entitled to an office assist-
ant to keep some sort of order
over the chaos, I am perfectly
able & willing to pay him
myself. Aside from
Warner and Conslater, ~~there~~
and Kennedy, there isn't

a real technical man left
in the Sat.

Lulu is a good man. Hummed &
tues. But he is slower than hell
and can't be hurried. The M.
has got Halpin so swamped
with tests of all kinds he
hasn't the actual time to
do any one thing well & expen-
ditiously.

I am averaging on an average
of from 35 to 75 letters a day.
I am not minutes, processes
I am investigating in the works etc.
I am handling all the
Mining Camp tests, buying &
get some Camp major & make
bulks that will last over 170
hours. Looks as if the mining

lamp will never come out, just
because the lamp mags
can't make small bulbs
that will start it. But
characteristic voltage curve.

I want to go on the matter
with you, because something
more is done to make ready
for the work that is coming
back up here as result of
no more experimenting in
the works. Since they took
practically all the men we
paid over by the Sat, & carried
on the work that was in
progress up here, I'm that
the work is coming back, where
are the men to do it?

I have been very anxious to
make in an assistant who

can take a lot of the load
off. For that man must
have a wide experience
with men & affairs, & he
must tell things up to
my superior. For
instance, our dear friend
Cassidy, is thoroughly
disturbed all on the line,
from the top down. He
simply doesn't know how to
handle them. Neither did I
when I came, & I was about
10 years or so, older than Cassidy.
It is a damn queer joint
and about 10 cliques. All
fighting among themselves and
then I'm losing the money.

We haven't any Eng. Dept
anywhere. In fact very little
system of any kind. Some

the men on jobs in the
works put down their own
views & nobody knows if
it is right.

Manbur will correct
much of that, but consider
how many years it has been
going on already!

I want you to feel, Jimmie,
that you can come to & talk with
me as you would a brother. I
am not "offendable", and have
no false pride. I am anxious to
do all I can to help that
forlorn old man. Incidentally
I'll make all the money I
can communally use out
of the Bailey. Box smuggling
has got to be done thus or
the whole organization will

go to hell in a hand basket.
It is no settling, showing
without of discretion and
suspicion - anyone seems to be
suspicious of the other. I am
persona grata there and have
done much to pacify matters
from time to time.

In spite of all this time
my spur on the Sudan I
continue to see rotten reports
in the film describing it.
For what can I do when I
have not wanted our there,
and any suggestions made
are construed as fault finding
for trouble making.

I'll tell you, my, Jesus
Christ would have a hard time
trying to get a lot of these

mess backs out of B.C.
ways + methods. It is a
sure enough He got to
know do a little.

At one time it was rumored
that I was so closely con-
tacted with the Govt. as to
be here to spy on fraudulent
use of the mails! I wonder
why anyone can think
the mails were being used
for such purposes? I am
sure the business doesn't use
it as such.

Why can't we get together
at my house evenings about
once a week or so and
go over matters. You have
buddy ideas, & I always
find a talk with you is
producing good results.

I'm nagging under a
pretty heavy load, Charles,
and really need your
help.

It is now 2 am. I
got up + went to work at
5 am. yesterday, so
this is the 23rd hour
of continued activity
with 1 city + 1 Newark
visit for my concerns
New York. For the time
being I am dealing with
Sot got because I didn't
report a failure of an
experiment I tried a week
ago. The conductor
checking. I'll admit I
can rectify the trouble
in a short time, but I haven't

have my job for 3 days
because of a sugar diabetes
attack. I have also sent
in Specs + his m about
a million dollars worth of
batteries + this + frozen
greenbeans during the
past 10 days.

I'm getting sleepy, so
am now. I must be up
and off in the city on
the 7th am train. Be
back near noon.
Wonders got 2 eggs + laid
in Bunting. Tulch

New York Herald
Sept 31 1916

NEW YORK

REPORT ASSAILS EDISON BATTERIES FOR SUBMARINES

Navy Department Receives
Findings on the B-E Ex-
plosion Here.

MINORITY DISSENTS FROM CONCLUSIONS

Contracts for the New War Vessels
Virtually Are Agreed
Upon.

WASHINGTON, D. C., September 30.—The majority and minority reports of the Naval Board audited to investigate storage batteries for submarine boats after the disaster to the B-E at New York, forwarded to Congress by Secretary Daniels, show a wide divergence of opinion revealing the inefficiency of the Edison battery, with which the B-E was equipped.

Lieutenant C. M. Shultz, R. N., Mr. Whittier and Cecil V. Johnson joined in a minority recommendation "that no Edison battery be installed in any of our submarines until further data are given that their disadvantages have been overcome." Captain George H. third, senior member of the board, and industrial manager of the New York Navy Yard, filed a dissenting report saying: "I believe that of the three types of battery tested by the board, the Edison battery is the best adapted for use in submarines."

A full explanation of the reasons behind each report is included in the correspondence sent to Congress. In every respect noted, except in generation of chlorine gas, the majority report finds the advantages to be with lead type cells as opposed to the Edison type.

Captain third notes that an internal explosion in a lead cell at the New York yard blew off the top of the container, while the Edison cell container "was not damaged by a similar explosion. He points out that "it is recognized that all storage batteries are dangerous and inefficient, but they are the only means, so far as I know, of furnishing propulsive power when submerged."

A drastic proposal designed to furnish authority under which private manufacturers of explosives would be compelled to give preference to navy work, has been submitted by Secretary Daniels to the House Naval Committee for inclusion in the War Naval Appropriation bill, consideration of which will be resumed next week.

Officials of the three shipbuilding companies which submitted proposals to construct battle cruisers virtually have reached an agreement with the Navy Department on a form of contract to govern the building of the vessels on a cost and "percentage" basis. All four of the cruisers authorized at the last session of Congress probably will be built at actual cost, plus a specified percentage.

Present intentions are that the awards will be made early next month. The Newport News Shipbuilding and Drydock Company, the Penn Shipbuilding Company of Chester, Mass., the Edison Iron Works of San Francisco, and probably William Cramp & Sons of Philadelphia, getting contracts for one battle cruiser each.

[ATTACHMENT]

Chicago Tribune
Oct 6 1916

SEPT. 29, 1916.

NAVY ROW OVER THOS. A. EDISON

Friction Crops Up Between
Daniels and Officers on
Submarine Batteries.

WORK IS CRITICIZED.

BY A STAFF CORRESPONDENT.

Washington, D. C., Oct. 5.—(Special.)

A serious conflict has arisen between Secretary of the Navy Daniels and officers of the navy over the use of Edison batteries in submarines now being constructed for the government.

Mr. Daniels, who is a warm friend of Thomas A. Edison, is insisting that the navy use Edison batteries in the officers in charge of the construction of the submarines assert that the batteries are dangerous and should not be used under any circumstances, as they are now made, inasmuch as they give out too much hydrogen gas while the vessels are submerged.

Edison Work Is Criticized.

It was learned on high authority today that the naval officers have their opposition to the Edison batteries on reports made by two boards of investigation.

Both of these boards named to inquire into the cause of the explosion in the submarine B-E at the Brooklyn navy yard on Jan. 18 last, resulting in the death of four men and the injury to ten others, returned a finding that the accident was due to the Edison battery. This report did not reach the public.

Mr. Daniels appointed a second board of officers to make a general inquiry into the merits of various batteries which were being offered the department for installation in submarines then building and prospective. This board also returned a finding against the Edison battery and again it was not published.

Urges Rejection of Batteries.

Meanwhile, however, according to prominent officials of the department, Mr. Daniels insisted on letting the contract for batteries for the new submarine L-1 now being constructed at Portsmouth to the Edison company.

Recently, it is said, officers in charge of the construction of the ship were assigned to test the batteries purchased from the Edison company and they promptly urged their rejection. Their cost to the government was between \$1000 and \$2000. Mr. Daniels has declined to reject them.

The department began to use Edison batteries to the exclusion of others, it was said today, following the explosion on the B-E, while it was anchored in Honolulu harbor more than eighteen months ago.

Mr. Edison and Miller Reese Hutchison, his personal representative, commented on that explosion and blamed the loss of the vessel on defective batteries, which permitted the escape of a large quantity of hydrogen gas.

Mr. Hattis, however, according to officials of the department, asserted that the use of Edison batteries would be away with this danger of escaping gas.

EDISON STORAGE BATTERY COMPANY

MEMORANDUM

*Mr. Edison
saw this 4/3/17*

April 2nd, 1917.
NAB-9-434

Mr. Edison:

Mr. Meadowcroft asked me to report to you on the progress being made on rejuvinating of cells. I am enclosing herewith report of the number of cells opened and just what work has been done on the active material. We had quite some difficulty in the various processes naturally, but the last one we ran up against is the acid treatment of flake, but we found a practical way of doing this and this arrangement will be ready in about two days.

85 lbs. of O. K. flake was sent to Loading Department
500 " of Flake on hand completed except screening
200 " of Flake will be secured from 500 lbs. unscreened flake.
710 " of Flake has passed through the plant.
710 lbs. Flake is equivalent to 2151 A-4 cells.

We made up 103 A-4 cells and tested same and found them to be higher than rated capacity. They were sent out and now being used in active service.

103 A-4 cells were made up and tested here. So far way above rated capacity. One of the original A-4 cells developed a short circuit. This, however, was due to mechanical defect.

The tube department reports as follows:

Condemned cells in stock; (disassembled)

A-4	3788	B-1	270
A-6	2241	B-2	280
A-8	1748	B-4	198
A10	894	B-6	14
A12	1737	C14	15
G-4	2	M-8	541

Tubes ready to split - 561,770 tubes or 4948 A-4 equivalent cells

No. of cells cut up to date -

A-4	12041
A-6	9690
A-8	8010
A12	1648 or 4,484,820 tubes

In addition to the above we have shipped 19,829 lbs. of iron and 6415 lbs. of Nickel Oxide to Silver Lake to be recovered. Silver Lake is recovering enough material to make up 1,000 A-4 equivalents for rejuv purpose or any other test you may decide to put through.

Mr. Mudd is now working on cost of rejuvinating cells and hopes to have this in shape for you within the next two or three days.

Robert A. Bachman

BATTERY STORAGE -

April 3, 1917.

Messrs. Edison, Bachman, Thompson, H. H. Smith, Acker, Mitchell.

I am enclosing copy of letter received from the Navy Department, in reply to my letter asking why the Edison Storage Battery had been disapproved for use with portable electric hand lanterns in the United States Navy.

M. R. HUTCHISON.

Watch = I don't believe this = Can you get some as we can verify it. Then we can proceed. E. Lunn

Hutch = Can you get the tests on lead battery lamps

No Sir. They are confidential to all except the manufacturers who submitted them. Involuntarily they have been charged with them for 6 months in terms of practically without suspension. Such as the return of a message. MRM

[ENCLOSURE]

COPY

219806-675-8-L

NAVY DEPARTMENT

BUREAU OF STEAM ENGINEERING

Washington, D. C., March 31, 1917.

Gentlemen:

1. Replying to your letter of March 26, 1917, regarding the reasons the Edison alkaline storage battery has been disapproved for ~~use~~ with portable electric hand lantern, the Bureau quotes as follows from New York Yard tests on portable hand lanterns fitted with batteries of your manufacture:

"3. Tests.

Seven batteries were fully charged and readings taken of the candlepower of a 2.5 volt lamp illuminated from this battery, and mounted in a miner's cap reflector, furnished with the batteries. The life of this newly charged battery was recorded as a basis to determine the relative deterioration of the other six batteries. The other six batteries were then placed in a compartment where the temperature changes were very slight, and candlepower readings taken on 1 battery each month until the seven cells were discharged. x x x x. At the end of the fourth month, the life of the battery was only about 2-1/2 hours, so at this time the remaining three cells were discharged as it was considered of no value to extend the test further.

4. Summary.

From the result of the test and observation of the battery, it is found that the end of the two months, ~~loss~~ practically all their useful charge. The life and candlepower at the end of this period is negligible.

5. Conclusion.

In view of the above summary it is considered that this type of battery submitted is unsuitable for Naval service, as it is desired to obtain a portable safety lantern of the primary or secondary type which will give considerable useful light after standing idle for 6 months or more."

2. The following is quoted from another test of Edison batteries and portable electric lantern:

"(b) The battery used is a serious drawback. This type of battery, in addition to being not leakproof, shows very poor characteristics as to life, both for a single charge and for shelf deterioration. Although no data is available for a

[ENCLOSURE]

Copy - 2 -

period of 3 and 6 months, the set at present on test shows a life of only 3 hours after 2 months standing, compared to 8 hours continuous burning, and an additional 4 hours after 15 hours recuperation, starting with the battery fully charged. It is thought that in order to make this battery leakproof, the manufacturer will have to cut down on the size of the plates, thus further impairing the life.

7. Conclusion.

As there is no safety device, and owing to the poor characteristics of the battery, it is considered that this lantern as it stands is not up to the present standard of safety hand lantern for use in Naval Service."

3. In view of the requirements of the Service that a portable electric hand lantern should give considerable useful light after standing idle for six months or more, and in view of the fact that it is necessary to have a non-spillable battery, the Bureau concurs with the recommendations of the Navy Yard, New York, which were based on tests, and disapproves the Edison alkaline storage battery for use with portable electric hand lantern.

Very respectfully,

(Signed) R. S. Griffen,

Engineer-in-Chief, U.S.N.,
Chief of Bureau.

Edison Storage Battery Co.
Orange, N. J.

EDISON STORAGE BATTERY COMPANY
MEMORANDUM

Charles E. -

We should now take up a discussion
May 10th, 1917
RAB-9-555

My dear Mr. Edison:

Renting system - using Rejuvenated cells

This is to inform you that this coming week we will include in our weekly schedule the assembling of 300 rejuvenated cells.

The first 300 will be assembled of entirely rejuvenated material, including cans, covers, grids, rubber parts and active material.

It is to be regretted that we cannot use these cells for replacement purposes on account of double mountings in the covers, and they can only be used for renting purposes.

This system can be built up to be a great one for its own sake easier to do -

The first lot will be A-C cells. We will be in position from now on to put at least that number on our weekly schedule and can materially increase this number as we go on.

I am glad to state that the 100 cells we put in service at the present time show higher rated capacity than new cells we made up and so far they have shown no indications of trouble. They have been in service from 7 to 8 months.

CC Messrs. Chas. Edison
S.B. Munchert
J.V. Miller
H.G. Thompson

Bachman

See me -

Σ

**EDISON STORAGE BATTERY COMPANY
MEMORANDUM**

L

May 21, 1917
LM-1-2012

Mr. Mendowcroft:
Laboratory

Regarding the subject of Laboratory letter
heads and stationery for my use.

As explained to you, it has been
Dr. Hutchison's custom to write to the Navy Department and the
officers to whom he would address any communications concerning
submarine batteries, on Edison Laboratory paper, the idea being
that these communications were really of a scientific character,
and to remove as far as possible, the idea of commercialism.

To me the idea seems a good one, and for
communication with any department of the Navy, suggestions and
statements will receive more consideration if they proceed from
a scientific laboratory rather than from the offices of a commercial
organization having something to sell.

In this connection it should be observed that
if I am to produce the best and most results for the Storage Battery
Company in outside expert matters, it will be necessary for the
relation of professional advisor and client to be strictly maintained.
If the general public should come to view me as merely an employee
of the Edison Storage Battery Co., such influence as I may now
possess as an independent Consulting Engineer, would disappear, and
the value of my services as an expert in the court, or in negotiations
with the Navy Department would be practically nullified. Undoubtedly
this is obvious to you without my drawing your attention to it, but
since the question of the use of Laboratory stationery has arisen, I
am taking this opportunity to mention this subject as one of the
collateral reasons which induced my first request for it. Personally,
it makes no difference to me whether or not it is desired that I
confine my communications to the limitations of the Storage Battery
Company. My suggestions are simply for what I consider to be the
most efficient means of using my services in behalf of the Company.

LAMAR LYNDON.

Lamar Lyndon

OK 7/2/17

Telegram

June 17, 1917

Acheson Smith

Acheson Graphite Co

Niagara Falls, N.Y.

Dr. Acheson has given me
contents your telegram. Please
express ~~the~~ 12 electrodes half by
six by twelve. I will try them.
Mark package attention Macdonald
Thos. A. Edison

Sent N.Y. 4 PM
6/17/17 WRM

#5005-

EDISON STORAGE BATTERY COMPANY
MEMORANDUM

July 23rd, 1917.

Mr. R. A. Bachman:

Several months ago the loading weight was raised from .0039 - .0042 to .0040 - .0045 upon the recommendation of H. H. Smith. The average loading weight since the first of May has been .0041. To meet the new standard the average should be .0042 as against the old standard of .0040. It is evident that the average has not been raised as far as it should be. Not only has the average failed to meet the new requirements, but on 19 days out of 58, or practically one third of the time we have had loading weights between .0039 and .0040 which was considered good practice only a few months ago.

In order to eliminate the readings under .0040 and bring the average still higher the standard plating weight should be changed. The standard weight for 125 layers is 17 pounds, 8 ounces for a loading weight of .0040. In order to bring the average up to .0042 the increased weight required can be calculated by proportion. This figures out to be 18 pounds, 4 ounces. Since Mr. Poppa has requested me to get your approval before he will make this change, will you kindly authorize Mr. Poppa to change the standard plating weight from 17 pounds 8 ounces to 18 pounds 4 ounces?

A. Pedersen
A. PEDERSEN.

CC - Messrs. Monahan, Weed and Poppa.

1288-20817

OFFICE OF FIRST VICE-PRESIDENT AND GENERAL MANAGER

MEMORANDUM NO. RAS-9-791

FUNCTION

SUBJECT Loading weights;

July 24th, 1917

Mr. D. R. Pederson;

Replying to your memorandum of the 23rd calling attention to the loading weights and recommending bringing the average standard plating weights for 125 layers, 17 lbs. 8 oz. for loading weights to 18 lbs. 4 oz.

There is a standing memorandum in the factory that no changes dare be made in any manufacturing unless first approved by either T. A. Edison or myself. I am very glad indeed that no changes have been made without my authority. This would be serious, and wish therefore, Mr. Pederson, you would make no changes in plating or any other manufacturing changes from the standards given unless they have either the approval of Mr. Edison or myself.

It is quite evident that your loading weight is entirely due to the hydrate and not to the flake. If your flake is constant; that is, the physical quality of the flake is constant, then I can see no reason why changes should be made in the weight of same. Heavier flake is of no benefit to the tubes. What we require is more layers in the tubes, not heavier flake. In order to get more layers it is necessary to bring the hydrate to our former standard or get the flake more curly, if same is not as it was in former days when the loading weights were higher than at present. This is something that should be investigated, as it is imperative we must get more flake in the tubes - there is no question about this.

R. J. BACHMAN

CC HJSmith
Memorandum
Good
Pope

FILE COPY

FORM 10-10-1916

3950

REFERENCE TO FINANCIAL EXECUTIVE'S MEMORANDUM NO.

3950

DATE Aug. 29, 1917.

FUNCTION IN QUESTION Edison Storage Battery Co.

SUBJECT Audit of Statement for Income Tax Feb. 28, 1917.

EFFECTIVE As soon as possible.

FOLLOW UP BY Secretarial Service Dept.

TO

Mr. S. B. Lambert,
Vice President and
Financial Executive.

Standard Audit of Income Tax Statement has
been made in the above named function for the fiscal year ended
February 28, 1917.

SCOPE OF AUDIT:

This audit comprises the verification of
the detail making up the following item:

NET INCOME (as per Income Tax Report) \$324,745.28

REPORT ON AUDIT:

Our report on this audit will be found on
the following pages.

COPIES TO

MR. S. B. LAMBERT (4)

Messrs. Chas. Edison, R.A. Boehman, H.M. Benstead.

COPIES OF THIS REPLY SHOULD BE SENT TO ALL PARTIES RECEIVING THE ORIGINAL, INCLUDING TWO COPIES TO THE FINANCIAL EXECUTIVE'S OFFICE.

We have thoroughly checked all the items supporting the above amount as shown on the Income Tax Statement. The following is a reconciliation of the amount with the Profit & Loss Statement as shown by the books of the Edison Storage Battery Co.

NET INCOME (as per books) \$ 189304.66
(Feb. 28, 1917)

Add: Charges Not Deductible

1. Writing off Darby Mine	\$ 15001.52
2. Bad Debts: Reserve	30525.85
3. Accrued Income Tax	9592.65
4. " Excise Tax	752.55
5. " Capital Stock Tax	1200.00
6. " Excess Profit Tax	1137.56
7. Reserve Slow Moving & Obsolete Stock	50000.00
8. " Second Class Coils	16255.52
9. " Self Insurance	<u>10274.74</u>
	<u>\$ 135439.62</u>

Net Income (as per Income Tax Statement) \$ 324743.28

1. DARBY MINE \$ 15001.52

This amount represents a loss on the investment in the Darby Mine. In accordance with the ruling of the Income Tax Law, this amount is not allowed as a deduction for the reason that it is not a current loss having stood on the books for a period of over 10 years.

2. BAD DEBTS RESERVE \$ 30525.85

The Reserve for Bad and Doubtful accounts created during the year was in excess of the actual loss written off to the extent of the above amount. The following is an analysis of the items making up the amount:

<u>Balance March 1, 1916</u>	\$ 14820.56
Reserves during period	<u>97240.34</u>
	114061.50

<u>Less:</u>	
Actual Losses charged to the account	\$ 66143.57
Adjustment of Reserve <u>Feb. 28, 1917</u>	<u>66715.09</u>

Balance Feb. 28, 1917.	\$ 47345.41
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Balance Mar. 1, 1916.	<u>14820.56</u>
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<u>Excess in A/c Not Deductible</u>	<u>\$ 30525.85</u>
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3. ACCUMULATED INCOME TAX

\$ 9592.65

The Reserve set up during the year for Government Income Tax was in excess of the actual charges by the above amount. This amount is accounted for as follows:

<u>Reserves</u>		
September		\$ 2523.92
October		933.72
November		5465.55
February	\$ 7361.60	
"	<u>2221.05</u>	<u>9592.65</u>
		18615.92
<u>Less: Charges</u>		
January 1916	3604.04	
February "	<u>5312.23</u>	<u>8923.27</u>
		\$ 9592.65

4. ACCUMULATED MUNITIONS TAX

\$ 752.68

This amount was set up during the year to provide for a tax on munitions. As no actual charges were made to the account the entire amount is not deductible.

5. ACCUMULATED CAPITAL STOCK TAX

\$ 1200.00

This amount was set up under date of Feb. 28, 1917 to accrue the tax on the Capital Stock for the year. We find a voucher was put through in February for \$785.50 in favor of Chas. P. Duffy, Collector of Taxes and charged to the above-mentioned account, the actual payment however was not made until April 1917.

6. ACCUMULATED EXCESS PROFIT TAX

\$ 1137.56

This amount was set up under date of 2/28/17 to cover taxes on excess profits for the month of January & February 1917. No charges were made to the account during the year, therefore the amount is not deductible.

7. RESERVE FOR SLOW MOVING & OBSOLETE STOCK

\$ 50000.00

The above amount was set up under date of February 28, 1917 to cover losses on material and supplies to be determined obsolete or of no value. As no actual charges for such losses were made during the period, the full amount becomes an item not deductible in the report.

3950

-4-

8. RESERVE FOR SECOND CLASS COLLS \$ 16253.62

This reserve represents an estimated loss in value on second class colls the actual loss yet to be determined.

9. SELF INSURANCE RESERVE \$ 10974.74

As no actual loss has been charged against this reserve the full amount is not deductible.

-----000-----

Approved:
J. W. Robinson,
Auditor.



Auditing Service Department,
Thomas A. Blison Interests.
J. W. Reeve.

1.

Battery- Storage

November 6th, 1917.
HBT-2-8202.

Mr. Thomas A. Edison, Pres.,
Edison Storage Battery Co.

Reviewing the past twelve months' business of the Battery Company it is to be noted that our sales in A4 equivalents per day show a marked increase over the previous twelve months reported to you a year ago today.

At the beginning of our fiscal year, March 1st, 1917, the Selling Division of this Company undertook to sell an average of 1500 A4 equivalents per day, and while the sales have not averaged this amount to date, we have every reason to believe before the close of that fiscal year we will have sold at least 450,000 A4 equivalents, and have realized our expectations.

Since report to you a year ago we have departmentalized our Selling Division, placing each Department in the hands of a man experienced in that particular activity over which he has jurisdiction, and it is hoped that by this specialization, together with additional salesmen which we will add from time to time, that we can be assured of a gradually increasing business from year to year.

The sale of our product for use in Industrial trucks and tractors is today the greater part of our business and this is due to the requirements of this apparatus by the Industrial Manufacturers of the country together with Government requirements for use abroad. It is interesting to note that the two largest manufacturers of this type of vehicle, namely, the Automatic Transportation Company of Buffalo and the Elwell - Parker Company of Cleveland, who will during this calendar year sell respectively approximately 2500 and 1800 trucks, are selling not less than 95% of their output equipped with our product. We have also been enabled during the past year to win the favor of thinking other manufacturers who are selling not less than 75% of their equipment with our product, and it is estimated that not less than 85% of all the Industrial trucks and tractors sold throughout the United States are equipped with Edison Batteries.

The Commercial Street Truck business has not been particularly active during the past year owing to the fact that the manufacturers in some instances have been inactive in the sale of their product and seem to be content with manufacturing a limited number of trucks per year when it would seem that by increased sales and manufacturing effort they could easily double their output. We have however, maintained our average in this respect and have sold our product for at least 50% of all commercial street trucks manufactured. We are encouraging increased activity on their part by direct advertising campaigns and hope that due to the opportunity which seems to be nearly here owing to the consumption of gasoline trucks by the Government, that the Commercial Street Truck Manufacturers will avail themselves of the opportunity which has not been presented to them before for many years.

We undertook a little over a year ago the rental of one type of our battery in connection with a Commercial Street Truck in the effort to place more trucks on the streets, and I have no hesitancy in saying that this experiment has proven without question a doubt that this method of exploitation of the Commercial Street Truck has produced marked results. It has encouraged at least one manufacturer through whom we rented our product to undertake to build a line of trucks from 1,000 lb. to 5 tons capacity.

It is with a great deal of pleasure that I wish to inform you that the American Express Co., who until last year had not purchased any of our product are fast realizing that Edison Batteries are best for their service and are slowly, but surely, giving us the majority of their business; and it is expected that during the next year that we will be able to replace a great many of the lead batteries with Edison which they are now using in approximately 600 trucks.

The Railroad Business -- particularly that in the car lighting equipment-- has not been as great as in former years owing to the almost prohibitive cost of steel passenger equipment; and for the last six months practically only four roads in this country have purchased any battery equipment for car lighting to speak of. However, we try where possible to get business by contracts with the various railroad companies - many of which contracts call for the exclusive use of our batteries - and it is expected that within the next year the Railroad Companies will of necessity have to purchase considerable new equipment; and when they do we are assured of this business.

It will be particularly gratifying to you, I think, to learn that the Edison Battery is practically standard for car lighting on the steam roads of this country.

In the Signal business we have received our share, or proportion, although this is far below what we have received in former years, due, practically, to the abandonment of new signal installations by the Railroad Companies throughout the country. They are only purchasing that which is actually required to maintain their present equipment.

We have in service on the Interborough Rapid Transit Company some 30,000 BH cells, and on the Brooklyn Rapid Transit some 12,000 cells -- all of which are used to operate the multiple unit control auxiliary lighting and Marker lights. On these two roads the Edison Battery is standard and for the past year they have bought nothing but our product.

Our House Lighting Department have shown a marked increase over last year and with one or two manufacturers - competitors of the Daelco System - endeavoring to build up their Organization I feel quite sure that the coming year will show a marked increased activity in this field.

Our Mine Locomotive business is particularly gratifying when it is noted that up to last year we had not sold altogether 200 equipments as compared with at least 400-- most of which have been sold to date--- but all of which we will sell before the expiration of our fiscal year.

Our Specialties Department shows an increased activity and it is expected that this Department will greatly increase its sales through the balance of this year and during our next fiscal year.

Beginning with March 1st, 1918 the Selling Division is going to undertake to sell during that fiscal year not less than 600,000 A4 equivalents.

It is regrettable to note, however, that our net income is not increasing as rapidly as it should with the increased volume of business, but this is due as you well know to the greatly increased cost of raw material and labor in manufacturing, as well as the necessary increases in selling expense due to increase of salaries.

I feel very optimistic, however, over the coming year and feel that our expectations in our sales will be realized unless the general business of the country falls off very considerably.

We are perfecting our organization and adding salesmen from time to time as conditions warrant and I have every reason to believe that our next year's business will show the increase which the Selling Division obligates itself to dispose of.

Respectfully submitted,
H.G. Thompson.

Battery Storage

November 6th, 1917.

To the Stockholders of Edison Storage Battery Co.,
Mr. Thomas A. Edison, President,
Orange, New Jersey.

Gentlemen:

I herewith beg to submit my report on general conditions.

During the past year we assembled 347,801 cells (A-4 Equivalents)
made up as follows:

ACTUAL CELLS.

A-3	225	B1H	26171	G11H	480
A-4	31026	B-2	13864	G14	1352
A4H	12916	B2H	8654	J-3	313
A-5	3226	B-4	23069	J-4	600
ASH	470	B4H	32960	J-5	150
A-6	54471	B-5	3	J-6	172
ASH	7349	B-6	9114	J-7	35
A-8	24770	B6H	6238	M-3	56694
ASH	9025	G-4	20144	M20	6529
A10	4654	G-5	836	M20-3	2353
A10H	375	G-6	3642	M20-12	150
A12	7878	G-7	1955	M20-13	200
A12H	541	G-9	9127	GX	220
		G11	6653	W-1	17270

The monthly assembly and shipments in A-4 equivalents since
November 1st, 1915, have been as follows:

MONTH	ASSEMBLY	SHIPMENTS.
November, 1915	18,198	15,325
December	21,369	20,212
January, 1916.	19,261	16,462
February	17,858	14,180
March	21,250	21,815
April	20,502	25,485
May	23,638	21,513
June	25,754	20,402
July	19,028	21,502
August	26,052	22,820
September	27,767	22,776
October	33,764	25,184
November	31,233	29,351
December	33,682	32,002
January, 1917	36,365	35,350
February	24,824	29,171
March	31,952	24,779
April	30,930	27,118
May	28,957	27,338
June	27,528	16,970
July	19,316	29,948
August	23,525	27,752
September	26,139	34,747
October	33,886	35,245

Our production schedule at the present time is 8,000 cells per week, and we have sufficient orders ahead (Approximately 100,000 cells, A-4 Equivalent) to warrant our keeping production up to at least this point for months to come, which will help to keep down cost to a minimum so far as overhead expenses is concerned.

Both material and labor have increased during the past year. The payroll per man has increased 12% and we have been handicapped by a labor turnover of 15% per month. In addition to this we have had several interruptions of schedules due to lack of sales and also lack of iron oxide, which the Chemical Works were unable to produce for lack of raw materials. This has added materially to the labor cost per A-4 cell base. In spite of the above condition the cost of labor per cell, based on preliminary figures for September 1917, is only 6% higher than a year ago. To accomplish this we have put in improved machinery in practically all departments, and are systematically making further improvements along these lines all the time. In order to offset the increased cost of labor and material, the list price of all A & B types were increased 10% November 1st.

It was decided in 1916 to install a rolling mill for the manufacture of our own ribbon steel for both negative and positive elements. The order was placed for the entire rolling mill equipment with Blake & Johnson of Waterbury, Connecticut, and the motors were ordered from Crocker-Wheeler Co., Amper, N.J. The motors were received during September of this year and the first shipment of rolls was received November 6th; this shipment consisted of four 8" rolls; the balance of the equipment is to be shipped approximately November 15th. The foundations for same are completed.

In order to effect a lower service cost for the Edison Storage Battery Company and other Edison Interests at Orange, it was decided to take over the entire Trucking Service Department, for the Edison Affiliated Interests at Orange, putting same under one management thus effecting a materially lower cartage cost for all concerned.

It was also decided to take over the Power Service for all Edison Interests at Orange and Silver Lake, putting same under one management, for the purpose of getting lower rates on purchases of current, and coal, thereby giving the Edison Storage Battery Company and other Edison Interests a lower power cost. Both the Trucking Service and Company, each under separate division manager. In order to give uniform service to the Power Service Division and have the service flexible, it was decided to purchase an additional 1,000 KW. generator, which generator was received the latter part of October and is now being installed. On account of the additional amount of current purchased over our bus bars, we are now able to buy current at a minimum cost from the Public Service Corporation.

The amount of insurance has been increased from \$865,000.00 to approximately \$2,500,000.00 which has made an increase in premiums of approximately \$40,000.00. The rates, however, have been materially reduced due to the elimination of fire hazards, the schedule rating March 1st, 1916 being \$2.55 per \$100.00 and March 1st, 1917 \$1.55 per \$100.00. Since this time we have made several further improvements which are now awaiting official action on the part of the Schedule Rating Bureau, and further reductions are being made all the time as fast as the improvements are effected.

In noting the financial statement for the last six months, the following items should be taken into consideration:

PROFITS SIX MONTHS August 31, 1917.

1st quarter		
Profits as shown on books	\$74,991.20	\$113,900.00
Less: Adjustments made in		
2nd quarter applicable to first	18,000.00	
	<u>\$56,991.20</u>	
2nd quarter		
Profits as shown on books	\$36,908.60	
Plus Adjustments made in		
2nd quarter applicable to first	18,000.00	
	<u>\$54,908.60</u>	

Percent of profit to capital invested $6\frac{1}{2}\%$ per year.

The following items tend to materially lessen the profits for this period.

<u>RESEARCH.</u>	\$ 22,000.00	
Increase over preceeding 6 months		5,900.00
<u>IDLE EQUIPMENT.</u>	59,000.00	
Increase over preceeding 6 months		
above figures cover interest, depreciation, maintenance, taxes, insurance		
Ac.		26,000.00
<u>BOND INTEREST.</u>		
Interest accrued on bonds Valued at \$2,000,000.00		
instead of \$500,000.00 - the value of the old issue.		
Increased in interest paid for six months		36,000.00
<u>FEDERAL INCOME & WAR TAXES</u>		
Increase in normal income tax rate from 2% to 6%	3,600.00	
Excess profits tax 6% to 20%	4,300.00	
<u>FIRE INSURANCE.</u>		
Increase in insurance schedules from		
\$865,000.00 to approximately \$2,500,000.00		
Increase in premiums for 6 months		20,000.00
<u>INTEREST AND Discounts on Bank Loans.</u>		12,018.85

Respectfully submitted,

ROBERT A. BACHMAN,
Vice President and
General Manager.

Edison Storage Battery Co.

CHARLES EDISON
CHAIRMAN
OF THE BOARD

THOMAS A. EDISON
Thomas A. Edison

ORANGE, N. J. U.S.A.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON PRESIDENT
E. S. HANBERT VICE-PRESIDENT
ROBERT A. BARNETT SECRETARY
H. S. THOMPSON TREASURER
H. F. MILLER MANAGER
ARTHUR MUDD SECRETARY

February 8, 1918.

Dear Mr. Edison:

In forwarding to you our regular quarterly advice of this Company's financial condition, I take pleasure in condensing for your ready reference the following facts:

1. That the Net Worth of this business - after deducting the book valuation of Patents - is nearly \$4,000,000.

2. That our Current and Working Assets are as conservatively stated as it is possible so to do without misstating the facts.

3. That our Liabilities are as fully stated as possible, even to the extent of including all merchandise in transit to us and such items as Accrued Excess Profits Taxes not due and payable until next June.

4. That the ratio of our Current Assets to Current Liabilities is 2.3 to 1.

5. That the valuation of our Plant is less than actual, for the reason that -

(a) The Land values as shown have increased over and above the original purchase cost of same shown herewith.

(b) All Buildings not of very recent construction have recently been appraised and the valuation determined to be less than the cost of reproducing same, even before the present era of high building costs.

(c) Similarly, all Equipment not of recent installation has likewise been appraised, and the value of our Equipment proved to be conservative as compared with the cost of same before the present era of high prices.

6. That the valuation of our Patents is conservatively stated, in view of the fact that they protect a product the commercial return upon which has averaged 12% on the investment during the past three years.

7. That all of these Assets are absolutely free from Mortgage, Bond Issue or other form of indebtedness, except the Current Liabilities reflected on the attached Financial Statement.

This favorable condition has been made possible through the valued support of our good Banks. We are truly grateful to them.

Yours very truly,

Stephen B. Maubert

Vice President and
Financial Executive.

Mr. Thomas A. Edison,
Fort Myers,
Florida.

*Dear Mr. Edison - This company
is now in about as close
financial condition as it
will ever be. To be able
to write a letter such as this
after three years work is
indeed a great pleasure.
I am sure that we will have
to run farther into debt, in
order to provide for immediate
expansion.*

Maubert

Lybrand, Ross, Bros. & Montgomery
 CERTIFIED PUBLIC ACCOUNTANTS (Pa.)

OFFICES
 NEW YORK
 PHILADELPHIA
 CHICAGO
 BOSTON
 PITTSBURGH
 NEW HAVEN

AGENCIES
 SAN FRANCISCO
 SEATTLE
 KANSAS CITY
 INDIANAPOLIS
 SAVANNAH
 LONDON, ENGLAND

EDISON STORAGE BATTERY COMPANY

CONSOLIDATED BALANCE SHEET as at November 30, 1917.

A S S E T S:		LIABILITIES:	
Cash in Banks and on hand	\$211,889.21	Notes Payable	\$600,000.00
Accounts Receivable, less Reserve	387,993.91	Accounts Payable	<u>239,555.88</u> \$839,555.88
Notes Receivable	<u>10,986.22</u> \$ 610,869.34	Sundry Accounts Payable:	
Sundry Account Receivable: Edison Portland Cement Co.	8.60	Thomas A. Edison	139,952.88
		Thomas A. Edison, Inc., et al	<u>8,877.66</u> 148,810.54
Inventories:		Deposits:	
Raw Material & Supplies	623,280.07	Uncompleted Contracts	68,688.95
Merchandise in Process	872,313.76	Batteries Rented	<u>15,876.00</u> 84,564.95
Finished Merchandise, in- cluding Consignments at cost	<u>438,327.32</u> 1,933,921.15	Accrued Pay Rolls, Taxes, &c.	<u>52,948.83</u>
Deferred Charges, consisting of unexpired insurance, &c.	<u>38,751.60</u>	Total Current Liabilities	1,125,880.20
Total Current and Working Assets	2,583,550.69	Contingent Reserve	32,125.07
Plant:		CAPITAL and SURPLUS:	
Land	73,952.03	Capital Stock, Common	2,998,300.00
Buildings	\$848,585.14	Do Preferred, 5% Cumulative	<u>1,801,300.00</u>
Less, Reserve	<u>92,698.76</u> 755,886.38		
Equipment	2,291,970.25	Surplus	<u>4,799,600.00</u>
Less, Reserve	<u>823,446.08</u>		<u>674,228.36</u> 5,473,828.36
	<u>1,468,524.17</u> 2,298,362.58		
Patents	<u>1,749,920.36</u>		
	<u>\$6,631,833.63</u>		<u>\$6,631,833.63</u>

We have audited the accounts of the EDISON STORAGE BATTERY COMPANY and its subsidiary selling Company and we certify that, in our opinion, the above balance sheet sets forth the true financial condition of that Company as of November 30, 1917.

New York, January 29, 1918.

Lybrand, Ross, Bros. & Montgomery
 Certified Public Accountants.

CONFIDENTIAL REPORT

to

EDISON STORAGE BATTERY CO.,

WEST ORANGE, N. J.

Regarding

Improvements to Plant and Reduction in Fire Insurance Rates.

Attention Mr. Arthur Mudd, Secy.

FEBRUARY 28TH, 1918.

Following our inspections of January 29th to February 2nd, inclusive, and various conferences on this matter with rating authorities, insurance companies, etc., I submit this report, requesting that it be treated with extreme confidence, for, until accepted by you (and then in different form) it is not to be presented to the Fire Insurance Companies or rating authorities.

I have completely abandoned any attempt, in laying out these requirements, to meet the makeup of the present schedule, and am proceeding entirely on the theory of reducing the possibility of fire loss to the lowest practical minimum and then convincing the companies that they have to find a way to adjust the insurance rates to the actual hazard rather than the theoretical hazard, as would be worked out in the schedule.

It is realized that we are proposing to transgress all the laws of the Medes and Persians in New Jersey, and for this reason we are not crying our plans from the housetops but have confidence in our belief that the thing can be done. But, no intimation of our plans or methods should be given to insurance inspectors, rating authorities or others, for I must handle this matter personally.

The writer did not see any details of the plans submitted by your former agents for the obtaining of a .42 rate, but from

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our study of the schedule we are very sure that the cost of such plans and the inconvenience to you of the installation they would require would render them entirely impracticable. I have tried to suggest improvements which will be found practical from an operative standpoint, and trust that you will promptly accept my requirements in their entirety, in exchange for the rates that I propose to ask for, which are:-

Blanketed buildings and contents, 90% co-insurance, covering the entire group of concrete buildings, . . .25

Blanketed entire group of buildings, including Box Shop, the contents of the same, lumber and coal, 90% co-insurance.264

Blanketed all contents of all buildings, materials in yards, lumber and coal, and all buildings except those of concrete construction, 90% co-insurance . .313

Note:- Above rates do not include any flat increases for war conditions.

The cost of the suggested improvements will be found moderate. The sprinklers will cost about \$10,000. I will attempt no estimates of the costs for metal boxes, metal shelving, metal furniture, metal partitions, etc., but they would not seem excessive and the improvements will be found to have a utility of their own, so that but part of their cost should be charged to fire insurance protection and against savings in insurance premiums.

I have required very few fire walls. There is no sense in putting through five complete fire walls, from the first floor to the seventh, which would be necessary to remove the charge from

1877

the present schedule, provided the contents of the buildings are arranged in such manner as to prevent the spread of fire. As long as we have abandoned the principle of ten thousand foot areas, I see no reason in recommending fire walls where they are not needed.

The plans suggested will call for a pretty thorough housecleaning, which will be found a good thing from an operating standpoint, and the low rates suggested will warrant the companies in demanding the continuance of rigid cleanliness and order. This I assume.

The difference in cost (§640) between insurance, blanketed over the whole property, and insurance excluding concrete buildings at the rates suggested, is so very small as to be negligible. As any fire will produce more or less damage to fireproof buildings and entail repairs, cleaning up, whitewashing, etc., I recommend the inclusion of them in the insurance. Further, the effect of this inclusion will be extremely good on the minds of the insurance companies and will make my proposition easier to put through.

It is my opinion that you should be well satisfied with an annual insurance cost of \$10,065.50 against the present cost of thirty to forty thousand dollars, and that the adoption of these improvements and plans will return a very large interest

883.

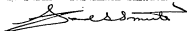
on your investment.

Bound into this report are an insurance plan of the property
and plates showing the floors and occupancy in detail.

Requirements for improvements and details of metal shelving
construction you might manufacture quite economically.

Respectfully submitted,

FRED S. SMITH - INSURANCE SERVICE



FSS:KIM

REQUIREMENTS

for the

EDISON STORAGE BATTERY CO.,

WEST ORANGE, N. J.

Attention Mr. Arthur Mudd, Secretary.

FEBRUARY 29TH, 1916.

- 7
- 7
1. All wooden partitions, not extending to the ceiling, to be replaced by partitions of non-combustible material; heavy wire netting on iron posts wherever feasible. All necessary wooden partitions, extending to ceiling, such as enclosures around War Goods Office, to be covered on both sides with sheet metal. Suspended platform in Cell Testing Room, 1st story #130 and Deck in 2nd story, #137 to have all exposed surface covered with sheet metal.
 2. All vertical spaces between stairway and elevator enclosures and windows to be tightly stopped with cement plaster of a thickness equivalent to the enclosures.
 3. 12" brick fire walls to be erected in the following locations:-

1st story:

- a. Between Wooden Box Japanning Room and the Carpenter Shop, #134.
- b. Between Packing Room and Driveway, #130.

2nd story:

- c. Around Metal Cell Box Japanning process #130.

4th story:

- a. In #130, separating off phonograph storage.

Note: Reverse motion picture machine storage in the north wing of #130 with phonograph storage in the south wing of #130 in such a manner that a brick wall, as shown on 4th story plan, will comply with the above requirement.

5th story:

- c. In #130, to separate off phonograph storage.
4. Electric light and power equipment to be thoroughly examined, properly insulated and fused; all switches and fuses to be enclosed in self-closing metal cabinets; rheostats or other heat-producing equipment mounted on slate slabs where in the vicinity of combustible material.
5. Automatic sprinklers, wet pipe system, to be placed throughout the following locations:-

1st story:

- a. In Packing Room
- 183

- b. Gasoline Automobile Garage.
- c. Cell Japanning Room.
- d. Japanning Room adjacent to #134.

2nd story:

- e. In Automatic Screw Machine Room.
- f. Metal Cell Box Japanning Room.

3rd story:

- g. Ten sprinklers spaced around wooden rack in #135.

4th story:

- h. In Phonograph Storage Room.
- i. Pocket Press Room.

5th story:

- j. Phonograph Storage Room.
- k. Entire floor of #137.

6th story:

- l. Entire floor of #137.

7th story:

- m. Pattern Storage Room, #130.

Location and arrangement of sprinklers, feed mains, risers, valves and fittings, also spacing of sprinklers, size of pipes and all matters pertaining to the sprinkler system to be installed in a manner satisfactory to the rating authorities.

6. Supplies. Two supplies of water to be provided as follows:-

- a. Connection to be made with Public Waterworks' main in Valley Road, to be made through not less than a 6" pipe.
- b. Connection to be made with 10" pipe with supply from pump to yard system on the supply side of the 6" meter between #130 and #137.

7. Gate valves controlling water supplies to sprinklers to be fastened open by leather strap with ends riveted or padlocked, common keys being used and kept by responsible parties.

8. All 2½ and 40 gallon chemical extinguishers to be re-charged at

BB

least once a year and tagged and dated at time of re-charging.

9. Private hydrants to have outside gate valves for each outlet, and to have houses constructed in accordance with requirements of the National Board of Fire Underwriters (descriptive pamphlet with outs enclosed). Each house to contain 100 feet of 2-5/8" cotton rubber-lined hose, two Underwriters' play pipes having 1-1/8" smooth nozzles, one hydrant wrench, 6 spanner wrenches, one axe, one crowbar, one lantern and 6 spare washers.
 10. Underground piping to be cast-iron, tar coated and capable of withstanding a static pressure of 200 pounds.
 11. Plans showing inside and outside system of piping, also all valves, etc., to be submitted to the rating authorities for approval before work is begun.
 12. Necessary approved safety waste cans, with self-closing covers, to be provided in Printing Room, 6th story, #130 and in Mimeograph Printing Room, 6th story #137.
 13. All gasoline or naphtha used for cleaning type or similar processes, to be kept and used from private safety cans instead of from glass bottles or open containers.
 14. A systematic inspection of all fire appliances and other matters pertaining to the fire risk should be made at least weekly by some reliable and responsible party. A detailed written report to be made, reports being dated and filed for ^{reference} ~~insurance~~ ~~underwriters'~~ ~~inspections~~.
- This inspection should preferably be made by members of the Private Fire Brigade, in rotation, in order that each member may become well acquainted with the location and the purpose for which each appliance has been provided.
15. The benzine washing hazard, carried on in #131, to be discontinued or removed a sufficient distance from the premises as not to carry an exposure charge.
- Note: This might properly be installed on the roof of south wing, #13D.
16. All wooden boxes for storage of parts or supplies to be replaced by metal receptacles or by fibre receptacles where metal ones are impracticable.
 17. All wooden stools and furniture to be discontinued and replaced by metal.

13D.

18. All wooden shelving or racks in places not provided with sprinkler protection to be torn down and replaced with steel or have the surfaces entirely metal-clad.
19. Oil cooled transformers in Power Room, 1st story #130, to be piped to a safe distance outside. Remote control valves to be arranged in such a manner that they can be operated from outside of room without danger to the operator from overheated or burning oil.
20. A substantial curbing 6" high, to be built around transformer stands and the basin thereby created, drained with a 6" pipe to sewer connection or elsewhere.
21. Kneelsior in Packing Room, when not in use, to be kept in a metal-lined bin with automatic self-closing cover.
22. Electric wiring in Oil Japanning Room, 1st story, #130 and in Pocket Press Room, 4th story #130, to be installed in metal conduit with bulbs enclosed in vapor-proof, guarded globes, with all switches or sparking appliances outside of room. All other spark-producing electrical equipment to be removed from rooms.
23. Operators in Cell Parts Annealing Room, 1st story #135 to be familiar with the location of shut-off valves in oil supply to furnaces in order that these may be expeditiously closed in case of failure of the air supply to prevent flooding of burners.
24. All miscellaneous storage, especially that contained in wooden receptacles, such as that now located in the 4th story of #130 opposite the Pocket Press Room, to be removed to the 6th story of #137, which should be the depository of such material, for which reason we propose equipping this room with automatic sprinklers.
25. Pitch melting to be removed from #132 to an especially constructed fireproof annex adjacent.
26. Calcium carbide in excess of 600 pounds or preferably in excess of one day's supply, to be stored in the proposed fireproof annex to #132 and separated from the pitch melting process by an unpierced 12" brick wall.
27. Opening left through all floors in south wing of #132 for future elevator, to be shut off by reinforced concrete slab covers of thickness equivalent to the flooring; present wood planking to be eliminated.

Respectfully submitted,

FRED S. SMITH - INSURANCE SERVICE

Eng.
MURKIN

M. Chu Hill
Engineer.

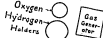
388.

W. ORANGE, N.J.



[REDUCTION RATIO = 16:1]

W. ORANGE, N.J.



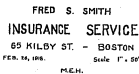
- 7 Private Fire Alarm Boxes.
- 5 Klaxons.
- 8 Watchmans Stations.
- 10 Hose Connections - 2 1/2" - with 30' linen hose at 9.
100' R.L. hose at one - All 3/4" nozzles.
- 22 Chemical - 2 1/2 gal. - Extinguishers.
- 3 Chemical - 40 gal. - Extinguishers. on wheels.
- 3 Pyrenes.
- 4 J.M. Extinguishers.

Combustible material shown dotted
to be replaced with non-
combustible material.

(AST)

[REDUCTION RATIO = 16:1]

W. ORANGE, N.J.

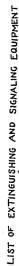


- 1 Public Fire Alarm Box
- 3 Private Fire Alarm Boxes.
- 4 Klaxons.
- 8 Watchmans Stations.
- 9 Hose Connections - 2½" - with 50' linen hose of 8,
100' R.L. hose of one - All ½" nozzles.
- 0 Chemical - 2½ gal. Extinguishers.
- 1 Chemical - 40 gal. Extinguisher on wheels.
- Fire Axe.

Proposed Work: --- — Brick Wall.
 (23) Automatic Sprinklers.

OCCUPANCY

Combustible material shown dotted —
to be replaced with non-
combustible material.



- 5 Private Fire Alarm Boxes.
- 5 Kluxons.
- 8 Watchmans Stations.
- 9 Hose Connections - 2 1/2" - with 50' linen hose of 8. 100' R.L. hose of one - All 3/4" nozzles.
- 3 Chemical - 2 1/2 gal. Extinguishers.
- 1 Chemical - 40 gal. Extinguisher on wheels
- 4 Fire Pails - water.
- 1 Fire Pail - sand.
- 1 Fire Axe.

THIRD STORY

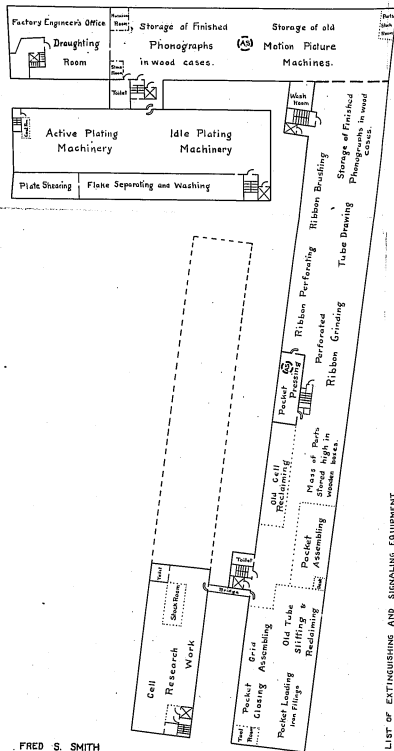
OCCUPANCY

Combustible material shown dotted -
to be replaced with non-
combustible material.

[REDUCTION RATIO = 16:1]

FRED S. SMITH
INSURANCE SERVICE
65 KILBY ST. - BOSTON
FEB. 14, 1938
M.E.H.

[REDUCTION RATIO = 16:1]



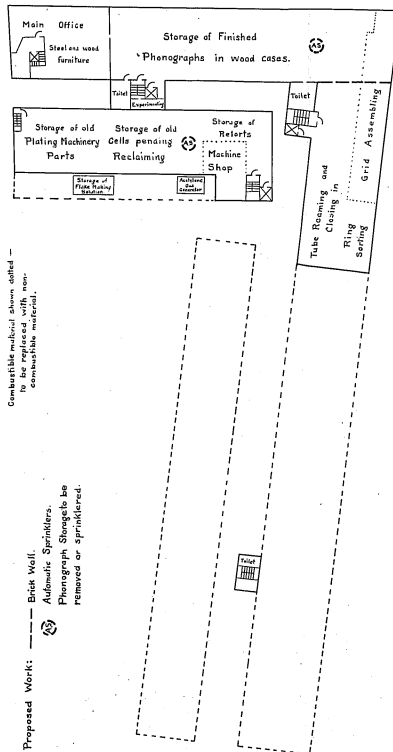
LIST OF EXTINGUISHING AND SIGNALING EQUIPMENT.

- 5 Private Fire Alarm Boxes.
- 5 Kitchens.
- 5 Machine Rooms.
- 5 Machine Rooms.
- 100 Chemical - 55 gal. - Extinguishers.
- 1 Fire Axe.

FOURTH STORY OCCUPANCY

Gas-tight material shown dotted -
to be replaced with non-
combustible material.

Proposed Work: --- Brick Wall
Automatic Sprinklers
Phonograph Storage to be
removed or sprinklered.



LIST OF EXTINGUISHING AND SIGNALING EQUIPMENT

- 4 Private Fire Alarm Boxes.
- 4 Kitchens.
- 4 Machine Rooms.
- 4 Machine Rooms.
- 4 Hose Conduits - 25' - with 3/4" lines hose at each.
- 4 Chemical - 55 gal. - Extinguishers.
- 1 Chemical - 45 gal. - Extinguisher on wheels.

Proposed Work: --- Automatic Sprinklers.
--- Brick Wall.

FIFTH STORY OCCUPANCY

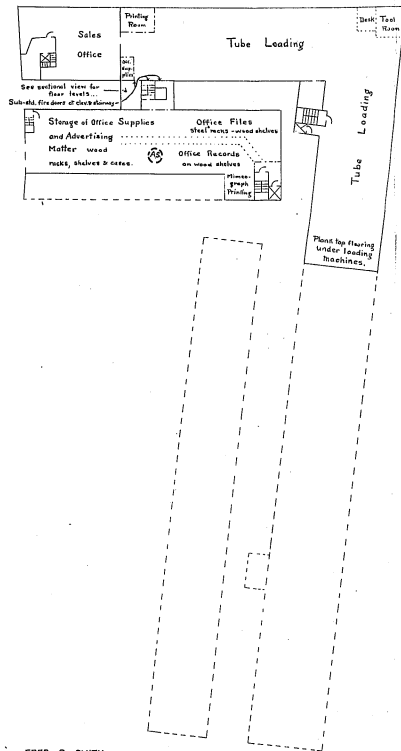
Combustible material shown dotted -
to be replaced with non-
combustible material.

EDISON STORAGE BATTERY CO.
W. ORANGE, N.J.

FRED S. SMITH
INSURANCE SERVICE

65 KILBY ST - BOSTON
FEB. 26, 1918 SCALE 1" = 50'
M.E.H.

[REDUCTION RATIO = 16:1]



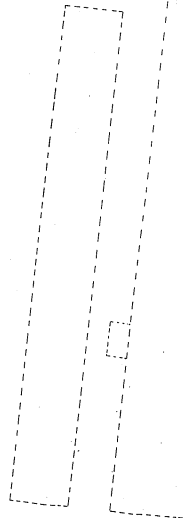
LIST OF EXTINGUISHING AND SIGNALING EQUIPMENT

- 4 Pink Fire Alarm Boxes.
- 3 Kitchens.
- 3 Watchman Stations.
- 2 Hose Connections - 1 1/2" with 30 feet hose attached.
- 2 Hose Connections - 1 1/2" with 30 feet hose attached.
- 15 Chemical - 1/2 gal. - Extinguishers.
- 8 Pyrene.

SIXTH STORY OCCUPANCY

Combustible material shown dotted -
to be eliminated.

Proposed work: Automatic Sprinklers



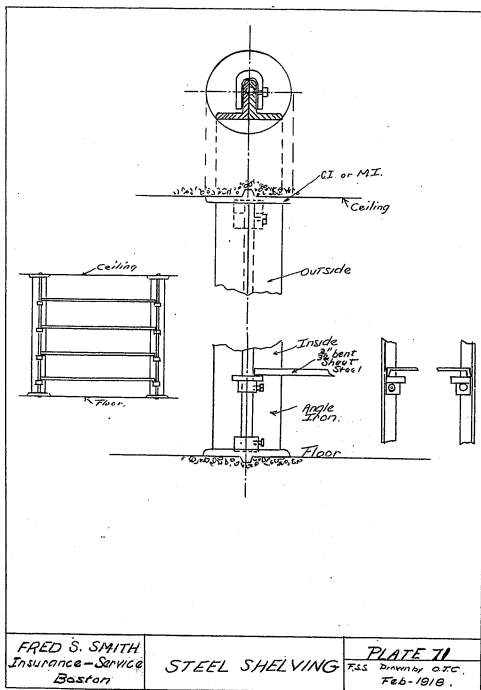
LIST OF EXTINGUISHING AND SIGNALING EQUIPMENT

- 1 Pink Fire Alarm Box.
- 1 Watchman Station.
- 2 Watchman Stations.
- 1 Hose Connection - 1 1/2" with 30 feet hose attached.
- 1 Hose Connection - 1 1/2" with 30 feet hose attached.
- 1 Chemical - 1/2 gal. - Extinguisher.
- 2 Chemical Extinguishers - 1/2 gal.

Proposed work: Automatic Sprinklers.

SEVENTH STORY OCCUPANCY

EDISON STORAGE BATTERY CO.
W. ORANGE N. J.



Edison Storage Battery Co.

CHARLES EDISON
VICE-PRESIDENT
OF THE BOARD

THOMAS A. EDISON
President

THOMAS A. EDISON
PRESIDENT
S. S. HANBERT
VICE-PRESIDENT
ROBERT A. BARNES
TREASURER
H. S. THOMPSON
GENERAL MANAGER
H. F. MILLER
VICE-MANAGER
ARTHUR MUDD
SECRETARY

ORANGE, N.J. U.S.A.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

March 2, 1918.

Dear Mr. Edison:-

At the Executive Committee Meeting of the Edison Storage Battery Company, held Thursday, February 28, Mr. Bachman told us the Government intended to take over the factory, diverting the entire output to the Signal Corp. In this event, we will not be allowed any cost for advertising or selling expense. Thus, we will be faced with the alternative of either keeping up a non-productive sales organization during the war or building up a new one at its close.

In connection with increasing the schedule of production at the Chemical Works from 8000 to 4000 A-4-Equivalent cells a day, Mr. Miller is ordering a new dryer from the Philadelphia Textile Machinery Company which has a daily capacity of 1000 A-4-Equivalents and will effect a considerable time saving in drying Iron Mix. In the event it does not effect a time saving sufficient to offset the necessity of scrapping the old driers, we are incurring only shipping and installation expenses. In the event this dryer does prove satisfactory, I have instructed Mr. Miller to negotiate for the same price on three additional driers, as I understand the price on this equipment is to be advanced.

I am sending Charles a copy of an advertisement which appeared in "Professional Memoirs" authorized by M. R. Hutchison, Incorporated, without our knowledge. This has caused considerable unfavorable comment, dealing as it does with the nationality of Battery Manufacturers. Accordingly, I have asked Mr. Thompson to notify M. R. Hutchison, Incorporated, that any advertising they contemplate in connection with Edison Storage Batteries, must first be approved by the Executive Committee.

Faithfully yours,

Mr. Thomas A. Edison,
Key West, Florida.

Marshall
4

Edison Storage Battery Co.

CHARLES EDISON
PRESIDENT
OF THE BOARD

TRADE MARK
Thomas A. Edison

ORANGE, N.J., U.S.A.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON PRESIDENT
S. B. HANRENT VICE-PRESIDENT
ROBERT A. BACHMAN SECRETARY
H. G. THOMPSON TREASURER
H. F. MILLER ASSISTANT SECRETARY
ARTHUR MUDD SECRETARY

March 19, 1918.

Dear Mr. Edison:

I am enclosing ten Edison Storage Battery Company notes in denominations of \$100,000 each. Three of these notes I expect to discount with the Bankers Trust Company, New York City, for a period of one year; three more I expect to discount with the War Credits Board to be paid back at the rate of 3% on Signal Corps deliveries; the four remaining ones I wish to have in reserve hoping that I may possibly have the opportunity to use same with the First National Bank of New York or with the Continental and Commercial Bank of Chicago.

Kindly affix your signature as President to all of these notes. Your personal endorsement on reverse side of notes is required as follows:

Please endorse the three notes to be discounted at the Bankers Trust Company.

Please endorse the five blank notes, as indicated by pencil notation.

The remaining two blank notes should not be endorsed, which fact I have noted on same in pencil.

I received your inquiry relative to Storage Battery losses after the cessation of government business, and I am writing you at considerable length how I have been endeavoring to safeguard the Storage Battery Company in this respect.

Faithfully yours,



Mr. Thomas A. Edison,
Key West, Florida.

April 9, 1918
AP-21-1006

Mr. Lamar Lyndon:

In reference to your note regarding a fused electrolyte for reducing Fe_2O_3 to Fe O or to Fe would say that fused caustic soda may possibly answer some of these requirements, but in view of the fact that pyrophoric or sponge iron can be so readily plated into mercury, it hardly seems advisable to work on anything else. For your information I might say that this process was subjected to a partial examination by me at the time Silver Lake was tying up the plant for want of iron, the idea being not so much to produce a better iron, but to do whatever was possible to relieve the situation, by any process which could be investigated conveniently at Orange, the idea being to produce an iron which would meet the requirements when made from any iron.

Mr. Dobyas has acquainted you with the ease of making iron by this process and also the control of the oxidation by electrochemical means, namely making the mass the anode in an alkaline bath. It is not claimed that this process will beat the chemical process, but I am confident that it will not be easy to find a better means of making it electrochemically.

In reference to your note regarding the "Chemical Theory of the Edison Storage Battery" evidently proposed by A. H. Kennedy would say that the equations check in the sense that they balance from a chemical standpoint, but the fact that a certain equation can be written does not necessarily prove that this can be done. In looking at the alleged reason given why this equation should be more reasonable the following may be noted:

- (1) The first reason is a quotation from a book, the theory advanced being logical, but since Mr. Jones did not use the chemical reactions of the Edison Battery to prove his theory, the burden of proof rests upon anyone who attempts to use the theory to explain the Edison Battery.

- (2) " Ni (OH)_2 is green. Ni (OH)_3 is black. Agreeing with what occurs in cell."

Although Ni (OH)_2 is green and Ni (OH)_3 is black, it is not to be forgotten that after the first charge the active material is never visibly changed. If color changes are to be taken as a criterion, there would have to be some very conclusive proof furnished that there is a color change. Fifty percent of oxygen should be readily visible by converting the black to a gray.

- (3) This is already disposed of by your marginal note, and in fact the author is evidently not sure of the matter as he inserts "I believe". Mr. Kennedy is wrong on this point.
- (4) "Shows that twice relative weight of Nickel Hydrate is needed as of iron or iron oxide for complete reaction. "Agrees with cell conditions" If the term "Agrees with cell conditions" is intended to mean that twice the weight of nickel hydrate is actually put in the cell, it should be noted that 2.5 lbs. of hydrate and 2.2 lbs. of iron mix are put in an A4 cell. Perhaps the author means, not what we actually use, but what we should use.

April 9, 1918
AP-21-1008

-2-

Mr. Kennedy is to be complimented for the novelty of his proposition, but if it was proposed for the purpose of displacing the old theory, I am afraid he will be disappointed in having his theory accepted. Fortunately, the published formula requires some hints of formation which are not obtainable. Therefore, it is impossible to calculate the thermodynamics that you request. Since the published formula includes a solid solution action, Mr. Edison is undoubtedly correct.

Mr. Dohyane came to this laboratory, stating that you had requested him to think of some substance which would change the vapor tension of the electrolyte, thereby increasing the voltage of the cell. I told him that I was very doubtful if a change in the vapor tension would change the voltage of the cell to any appreciable extent, in fact I pointed out that all on the top cell does not change the voltage. Mr. Dohyane later on delivered a copy of "The Theory of the Lead Accumulator" by Polezelek from you, stating that in this book the effect of vapor tension on the voltage could be found. The book being in German makes it difficult to look all through, but the nearest sure. Since increased external pressure will raise the boiling point and boiling point, it follows that increased pressure must change the vapor tension. Since Polezelek states that one hundred atmospheres only changed the voltage eleven ten thousandths of a volt, it is clearly evident that this is not a profitable line to work upon.

A. PEDERSEN.

C. F. R. A. Bachman,

A. Pedersen

Y r Mambert Battery - Storage.

FROM THE EXPORT DIVISION OF EDISON STORAGE BATTERY COMPANY,
10 Fifth Avenue
NEW YORK CITY

May 21st, 1916.

Mr. Charles Edison:-

I would refer you to Mr. Edison's memo addressed to yourself dated April 15th, 1916, in reference to the attention given to the execution of Edison Accumulators' Storage Battery orders, also your notation thereon, reading as follows :

"Mr. Stevens - Please advise me"

As of Saturday May 15th we had on hand uncompleted Storage Battery orders with the Edison Storage Battery Company amounting to \$356,795.00. This amount includes unfilled orders for account of Edison Accumulators, Limited, as of same date amounting to \$185,207.21. Several of these orders have been standing open since October of last year, and we are constantly receiving letters from Mr. Monnot, indicating that his business is in a deplorable condition on account of our failure to make shipments. Mr. Monnot has enlisted the services of the British Government in his behalf, and through their medium representations have been made to the British Limitations Board's representative in New York, Sir Connon Guthrie, who is doing his utmost to provide space on such vessels as the Board may directly control. Only last week we were advised that they had space for 4 ton Storage Batteries, but the factory was unable to supply a single cell. The Export Division took over Edison Accumulators' business March 1st, 1916, and since that date, i.e. during approx. 2 1/2 months, we have shipped the following material :

772 A-4 Cells
192 A-5 " "
96 A-6 " "
60 A-8 " "
60 A-10 " "
42 W-1-T "
600 #20 Cans Electrolyte
60 Fillers
— miscellaneous parts

Mr. Monnot is particularly desirous of obtaining B-6 Cells, and he claims to have a large number of Elwell-Parker trucks ready, for which these cells are required. He also advises

/2/ Mr. Charles Edison

having a number of Walker and Lammenden Chassis for which he requires A-4, A-8 and A-10 Cells.

In view of the large number of orders we have on hand for Edison Accumulators, Limited, many of which dating back five, six and seven months, we can quite appreciate that Mr. Hammet is greatly exercised on account of the delay in executing same.

Further, he is constantly calling our attention to the clause in his agreement which reads as follows :

PAGE 3 - CLAUSE 5:-

"The Edison Storage Battery Company agrees to supply
"the Company (Edison Accumulators, Ltd.) with Edison
"Storage Batteries of the most improved standard commercial types, not to exceed a maximum of 3000 A-4
"Cells or their equivalent in A.H. capacity per month."

In view of present conditions as existing, we are fully protected in view of the following, which is part of clause 5:

"It is especially agreed that the Edison Storage Battery Company shall be relieved of all liability under this
"paragraph in case of the performance thereof is rendered
"impossible by fire, riot, strike, or the Act of God or
"the Public Enemy"

Edison Accumulators' Agents in New York, Messrs Balfour, Williamson & Co. have advised us that they are ready to take over immediately 500 cases Storage Battery material for account of Edison Accumulators, Ltd.

We recently received an order from Edison Accumulators, Limited, for 180 batteries of 21 cells type B-6 each, or a total of 3780 cells, and they stipulated that 16 batteries or 336 cells should be shipped every two weeks. In acknowledging receipt of this order, I advised them that we would do everything possible to facilitate shipments against same, but could not guarantee semi-monthly shipments as stipulated.

We have also a very large number of miscellaneous orders which have been standing open for several months, for some of which export licences have been received and our clients are constantly urging us to make delivery.

A. H. JOHNSON & CO. LTD., CAPS TOWN, S. AFRICA. We have the following orders on hand for these people for shipment to South Africa:

500 B-4 Cells	-	Placed	October 31st, 1917
200 A-8-H	"	"	May 6th, 1918
4000 B-6-H	"	"	May 4th, 1918
180 A-8-H	"	"	May 14th, 1918

/3/ Mr. Charles Edison.

I am in receipt of a cable from Messrs. A. H. Johnson & Co., Ltd., reading as follows:

"Government chartered special vessel sailing from States
"end July - Space all our orders with you will be granted
"this steamer if you can promise delivery cable immediately
"can you supply"

The 4000 B-6-M Cells referred to above are for the South
African Government Railways.

AGAR, GROSS & CO. BURNS AIRTEL. We have on order 700
B-2 Cells placed January 3rd, 1000 B-6 and 200 A-4 Cells placed
April 12th.

Messrs Agar, Gross & Co. recently advised us that their
Government license had about expired and indicated that difficul-
ties would be experienced in having this license renewed, but we
were unable to make any deliveries.

ARTHUR BURNED, CHRISTIANIA, NORWAY. We have orders for
immediate delivery, 800 B-2, 400 A-6, 800 A-8, and 100 A-10 Cells
AGAR, GROSS & CO. BURNS AIRTEL.
for shipment to our Sydney Office:

625 B-2 Cells	100 A-5 Cells
110 B-1-E "	85 A-3 "
260 B-4 "	10 C-1 "
100 B-6 "	10 C-6 "
450 A-4 "	120 E-20 "
190 A-6 "	

At the present time we are obliged to overcome almost
unsurmountable difficulties in the matter of obtaining export
licenses. If we finally succeed in obtaining a license for a
stated number of cases and part shipment only is made, we must surrender
the license and then obtain a new one for the balance of the shipment
which means a further delay from one to two months.

The Government is constantly changing their policy in reference
to granting export licenses and our position is becoming more difficult
almost daily. I believe that some one in the Edison Storage Battery
Company should be delegated to give particular attention to the execution
of our orders, advising us daily, semi-weekly or weekly as to the bat-
tery material to be assigned to our orders, and co-operate with us in
order that orders for which licenses have been received should be given
preference. All things being equal, we would have no right to expect
preferential treatment, but conditions at present in regard to making
foreign shipments are so unusual and steamship space so scarce, that
some preference should be given over domestic orders which can be shipped
immediately the goods are ready without formalities.

*CE. will arrange
with HGT. to
have 1000 cells to
act in this
capacity.
Munster*

BATTERY -
STORAGE -
EDISON SPOR. BATT'CO.

May 24, 1918.

Mr. Charles Edison.

My Dear Charles:

ORGANIZATION:

Following Wednesday morning's meeting of the Board of Directors and the Executive Committee, I took my two good assistants, Messrs. Mudd and March, to lunch with me, and in the course of conversation gave expression to my surprise that neither of them, as closely in touch with the business as they are, and being constantly in contact with all of the Storage Battery Company's problems and the members of its organization, etc., were able to put their finger on the cause of our difficulties, as indicated by the present situation, and the fact that it seems to be increasingly necessary to tie up more and more moneys in the business, which does not seem to be warranted by the volume of business which we are doing.

MANUFACTURING: Mr. Mudd asked me a few questions about Phonograph Works, and I explained to him that with Mr. Luhr constantly in the factory, going around from department to department, and knowing as he does most of our old men personally, and being an expert mechanical man, a very favorable condition exists throughout the Phonograph Works, due to the fact that the "big boss," as it were, is constantly in rather close touch with all of the men, and the men can at any time look up from their work and see him.

I explained to him that all of the Company's records, the computing of the time for payment of work, and the records in connection with the transfer of material from department to department, and the giving out of work to the men, and the records of the work which passes inspection, and so on, are all under the supervision of Mr. Howard Pokert, now Secretary of that Company, and formerly Assistant Treasurer, and that Mr. Pokert's previous training in the Treasury Department, where he has learned to know the value of money, places him in a frame of mind where he looks upon raw materials and work in process and finished parts, and instruments in the factory, as so much cash; whereas most men do not view them from the cash standpoint, and as a result thereof Mr. Pokert is truly valuable to the organization,—much more valuable than the average man occupying a similar position, who does not take the same viewpoint of things.

Mr. Mudd enquired about George Owen. I explained that Mr. Owen occupies a sort of middle ground as it were; that he is neither giving

-2-

attention to the matters that are being looked after by Mr. Luhr, nor is he giving attention to the matters being looked after by Mr. Ekeret, but his problem has been to maintain the flow of work through the Phonograph Works, to regulate the flow of incoming materials, and the flow of outgoing finished product in accordance with our needs, and, in connection with this, tying up with Mr. Luhr on the one hand and with Mr. Ekeret on the other, and that in this arrangement we have a combination that is hard to beat.

I presume that Mr. Wadd means that Mr. Monahan is the tool and equipment man, but is not so strong on the personal touch with the men. And whereas Mr. Baohman is strong on the personal touch with the men, he is not constantly in the factory in the way that Mr. Luhr is. This may be partly due to the fact that as General Manager he feels that a larger portion of his time must be devoted to matters of a general nature than is true in the case of Mr. Luhr, who more fully feels that he is Works Manager.

"If this were not enough (continued Mr. Mudd) we have no man in the Manufacturing end of the Edison Storage Battery Company who corresponds to George Owen in the Phonograph Works. We have no man who is devoting his time entirely to the planning of work through the factory, to see that the minimum amount of wastage is required, and that the flow of value is maintained normally, and so on."

(You know I have been drawing to the attention of everyone in the Battery Company that I do not see how they can properly balance the situation without bills of material, so that when they know it is necessary to produce so many G-4 cells, or when they receive an enquiry from the Government respecting the

Mr. Charles Edison:

-3-

May 24, 1918.

manufacture of G-4 cells, they would know what quantities of materials are represented, in order to fill an order, and they could start their materials coming in and have everything flow through in a normal manner.)

"Since you," said Mr. Mudd, addressing me, "have drawn to my attention the fact that we have no bills of materials corresponding to our complete cells, I have been giving a little thought to this problem, and I believe that I can very quickly devise an automatic scheme for controlling the situation, which is something we absolutely must have. But of course if I undertake to do this it will mean the neglect of my regular duties as Secretary of the Company, and you are asking me to maintain all of our relations at a very high standard, which I am anxious to do, and which in reality it is my real work to do and work which I like and am perfectly satisfied and contented to do--the work in which I like and am happy. But if I am not to do these things it is very evident that some one should be found to do them."

In other words, Mr. Mudd has found that we have no real planning head for the Edison Storage Battery Company that corresponds to the function that we hope Mr. Owen is going to perform satisfactorily in the Phonograph Works.

As you probably have observed, I have been trying to bolster up this weakness through my assistant, Mr. Murah, but this is only a temporary expedient and not one on which I expect to base permanent success. It is an expedient which I have adopted because I rather felt it would be difficult to introduce a new man into the Edison Storage Battery Company organization to fulfil this need to which Mr. Mudd gives expression.

I thought it would be of interest to you to know that independently of my own thought another man closely in touch with the Edison Storage Battery Company situation has arrived at the same conclusion.

REMARK: I was just on the point of leaving Mr. Mudd, after we had discussed several other matters, when he called me back and said:

"There is another thing along this same line of organization, and that is, we ought to have a Manager of Sales who is here all the time. We should have some one here to whom all the business matters of the Selling Division can be referred, and who will decide things and give the 'Yes' or 'No.' It is all right--in fact we should have a General Sales Manager who is constantly out and meeting our customers, and gingering up our salesmen, and doing the hand-shaking, and so on. But it is not right to have the same man exercising both functions, because when this same man is away there is nobody to decide the things which come up for decision in the selling branch of the business."

"We have grown to the point now when the number of these things coming up is constantly increasing. There are all kinds of contracts, and matters of a follow-up nature, in connection with which the proper attention means promotion of the Company's interests, and saving of many dollars, and at the present time these matters are being rather bandied around from floor to floor because of lack of such a man."

Mr. Charles Edison:

-4-

May 24, 19.

This will be a matter of interest to you (Mr. Charles Edison) in view of the recent conversations which we have had with Mr. Thompson, and confirms the fact that the need exists in the Edison Storage Battery Company for some one to take the place of Charlie Poyer.

Mr. Mudd said that such a man should be of the business manager type; that to save a little money in salaries the Storage Battery Company is now running an enormous risk by not having enough business judgment to be able to satisfactorily handle all the matters which are coming up from time to time.

Mr. Mudd gave expression to the thought that he was trying to fulfil these needs at the present time probably more than any of the other officers of the Company realized, and was perfectly willing to go on trying to fulfil these needs—in fact he was not trying to get out from under any work, but he wanted to see this Storage Battery Company take its proper place in the industrial world, and he felt that at the present time it was being handicapped because of a lack of sufficient business heads to fulfil the needs, and to take advantage of every possible opportunity which presented itself for the conservation of the Company's real resources, the upbuilding of its future, and the making of present savings.

In the light of our present situation in the Battery Company, which, as you know, I have been unable to explain to myself on any reasonable basis, and which I believe you likewise have been unable to explain to your own satisfaction, or have anyone else explain it to your satisfaction, the above remarks are very pertinent. I do believe that if the men immediately in touch with the problems of this big business do not themselves see the necessity for feel inclined to recognize the need of additional strength in the form of added business management, we will have to quietly and agreeably bring them to the point where they do see it, because the interests which we have at stake are entirely too great to continue the situation as at present.

Sincerely yours,

AEM

BATTERY - STORAGE -

Edison Storage Battery Co.

CHARLES EDISON
PRESIDENT
OF THE BOARD

THOMAS A. EDISON
Thomas A. Edison

ORANGE, N.J. U.S.A.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON PRESIDENT
S. R. HANDELY VICE-PRESIDENT AND
FINANCIAL EXECUTIVE
ROBERT A. BARNHARTT AND
JACOB HANDELY MANAGERS
H. R. THOMPSON SECRETARY AND
TREASURER
H. F. MILLER SECRETARY AND
TREASURER
ARTHUR MURDO TREASURER
SECRETARY

CONFERENCE, JUNE 10, 1918.

Present: Mr. Charles Edison
Mr. M.M. Jones
Mr. C.S.A. Williams

Subject: Procedure in Tube Inspection and Tube
Assembly Departments relative to pro-
duction campaign.

GENERAL CONCLUSION: That wherever possible and as far as possible
girls be put on the work in these two Departments, rather than men, since
there seems to be no job except graphiting that is unsuitable to women.

A scheme of promotion to be worked out, along the following lines;

(Outline by Mr. Jones): The first thing is to bring Miss Myrna
Brown into the Department as Instructress, to set up a training room in one
section, properly separated from the balance of the room. Instructress to
receive all applicants for work when sent from Employment Department, and
to definitely check the following points;

1. That the work is satisfactory to the applicant.
2. That it is convenient to her residence.
3. That the rate of pay is satisfactory.
4. That she is a type that fits into the program of the Department.

If the candidate satisfactorily passes these points she is then to
be definitely engaged, with instructions to report to the Instructress at a
certain time. When she reports she will have proper card, and Instructress
will take her to the time-clock, describe the reason for the use of the time-
card, and how to use it. She will then show worker where to hang clothing,
explain when she will be paid, and location of toilets.

Tube Conference:

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Worker will then be taken to training room and started at the foot of the class. If several girls are started the same day they will group themselves around the table, and the instructress will point out;

1. Just what the operation is.
2. Where the part fits in to the Storage Battery.
3. The part it performs in the Storage Battery.
4. The purpose of a Storage Battery.
5. Brief statement of how it was developed by Mr. Edison.

Workers will then be assigned to tables according to ability. The One who seems to grasp the most readily will be placed farthest up the line, and the poorest at the bottom. Instructress to circulate back and forth between them constantly, until they seem to be doing the work satisfactorily.

Study to be made so that proper production is determined, and worker goes out on to floor when she reaches the proper figure.

When worker who leaves the head of the class to go on the floor is placed, she should be very carefully analyzed, and seated beside a woman of corresponding temperament, or at least such arrangement made that two personalities which will clash are not placed together. she should be introduced to her neighbor, and first name should be used.

Supervisor of group to be with head Instructress, and take the worker into custody at this point.

Supervisor to work on the basis of prevention rather than cure, inspecting production constantly, to make certain that the amount of spoiled material is held at a minimum.

Two rest periods, or more if necessary of shorter duration, in the forenoon, and the same in the afternoon. Everybody to be required to stop work at that time, to get out, move around, have the windows thrown open, etc.

Girls on capping to be promoted through progressive arrangements of operations to positions as supervisors, and to inspection positions where need exists.

The actual statements the Instructresses are going to say to the girls should be worked out, so that they always say the same thing, and said in the spirit of a salesman.

(Mr. Williams): To get something started, I suggest that we get Miss Brown over here as Instructress and Forelady, and let her work with some of the girls, let her learn some operations, some of Archer's job, until she is familiar with the work, and let her pick out some of the best girls for

Tube Conference;

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examples. Then you have established a table as a group of standard workers, and you can say to the others, "This is what we want you girls to aspire to, to work up to the same speed that this other table is going."

(Mr. Charles Edison): But I would rather work out what we want her to do first, instead of having her come over, and simply say, "Go ahead and do the work."

(Mr. Jones): The first thing she must do is to decide which girls she is going to take first; and then in what units the groups should be, six, ten, twenty--

(Mr. Charles Edison): Another thing is how many supervisors there will be.

(Mr. Jones): That depends on production.

(Mr. Charles Edison): They won't be producers.

(Mr. Jones): They will be at least 40% producers. They will do a certain amount. We will say, "We will expect you to turn out so much production as an example to the others. When the girls get tired they should be stimulated by your example."

(Mr. Charles Edison): You would not expect the Instructress to be a producer.

(Mr. Jones): I would expect her to have a machine in front of her, and say, "We don't expect you to make things, that is not a part of your job, but it is a part of your job to encourage the others, and of course they cannot be expected to do what you cannot do yourself, or would not do."

(Mr. Charles Edison): I would not want to pay the supervisors piece-work.

(Mr. Jones): I would not either. Give the supervisor a bonus on the basis of the production of her unit. If the bonus be for improvement in work she would get part of the bonus for making it. Maybe the rates to the whole group should be on the gang basis. That should be considered. If we give gang rates and one girl stays out that spoils it.

(Mr. Williams): I want to get hold of Hagen or somebody, and get each of these operations, and see if there is any difference in production of different sized tubes. On some operations the speed is the same. For instance, on reaming it is a little slower on the 3/16 than on the 1/4 inch. I want to get those differences down and go right through the department, and make up an operation sheet, and show what we consider straight production, and what are the rates and what they should be able to earn.

(Mr. Jones): In proceeding to classify the jobs we should take the initial step and classify all the jobs in the plant. We should have that in mind, sooner or later we are going to set the jobs up on a proper basis. We will start with rough labor. A tool machine operator is in the same rela-

Tube Conference;

-4-

tion to rough labor that 60 is to 40. Set those relations up. Then we can say our base rate is 40 cents an hour. Then it automatically follows that screw machine operators get a third more, or whatever that is. We ought to set up a relation in all of our plants. Whenever we change rates we merely change the base rates, and unless thereby something fundamentally wrong with the relationship do not interfere with it at all. That is something we have in mind doing.

(Mr. Charles Edison): We ought to immediately get busy on the dressing rooms and toilets. Whoever the man is ought to get busy. Would it not be a good plan to tell these girls that we are going to pick out one of the best a week from now—some girls to act as supervisors?

(Mr. Jones): I would first get them on the basis of seniority, and general all-round approachability, that is the first thing. They have to be approachable. Then the next thing is ability to describe, to teach. The next thing is term of service here. Before that I would get their own individual production back over a period.

(Mr. Williams): Take Miss Brown's operations. Start in the first operation—start pushing the production, and try to speed it up. Take the various steps, capping or whatever operation comes first, line that up, train the girls to see that they are all working toward one end, and have the fullest opportunity to get ahead. We will have time to judge just which is the best worker, and pick one girl to be over the whole group where she shows up best. Then take the best girl outside of her in that group and divide it into two sections. Then go on to the next group, and clean up that way, and get some one girl supervisor over each group who is to take every new girl and start her in and see that she is properly trained.

Conclusion: Miss Brown will start working in the capping operations until she is familiar enough with the operations to pick out the good workers who will be suitable for working supervisors as well as a woman to replace her as the head supervisor of the capping operations.

She will also determine whether it will be best to have a separate school of instruction for the new girls, or whether to break them in right on the job.

The matter will be further discussed with Miss Brown, Miss Goodwin and Miss Whittingham, at 9.30 Tuesday morning, June 11.

A. E. Williamson.

EDISON STORAGE BATTERY COMPANY
Memorandum

June 14, 1918

Mr. Chas. Edison,
Laboratory.

My dear Charles:

In reference to our conversation in the Library yesterday, I thought further to give you some real data as to why our production was really curtailed in the Edison Storage Battery Co. during the time we took on Government orders.

If you had consulted the minutes that should be available of the meetings held in the Laboratory, especially the Executive meetings, where we had a Secretary to take notes of everything that was said (I am not familiar as to what happens to these records but believe they should be accessible to you so you could get any information and use them at any time) you should have been informed as to the conditions and our inability to produce our usual schedule at each meeting.

In order to relieve you of going through these records, I am giving you herewith a report in detail.

In addition to this report I will have a sample of each order in the Library to show you what has been done; steel boxes, new type battery, and the non-spillable valve which had to be developed and tools made for same at a time when the Personnel Service Department was unable to secure help.

We are shy at least 40 men in our Tool Room today, all of which you were familiar with and I had written you a pleading letter to assist me, through the Personnel Department, to get help for the Storage Battery Company, or place someone in charge of the Personnel Department with ability to do so and work closer with the Edison Storage Battery foremen.

Following is my report:

1st: Production lost due to scarcity and poor quality of iron.
30% loss in production February 2nd to March 9th, 18,660 A-4 equivalent cells.

2nd: Production lost due to shut downs by Fuel Administration.
9 days @ 1750 per day, 15,750 cells.

3rd: Production lost due to lack of and inability to get help.
Running with average of 90% - 14,500 cells.

4th: Production lost on account of the necessity of changing over tools from 1/4" to 3/16" tubes. March 9th to April 13th, loss in cells, 12,500 and loss of stock of plates for 4,000 cells.

5th: Time lost by Tool Room on account of making up cells for Signal Corps by hand, by order of United States Government, thereby delaying our tool room in keeping up our tools and producing new tools. January, 120 cells for Liberty Motor; February, 140 cells for Signal Corps, 25% of Tool Room 3-1/2 weeks.

EDISON STORAGE BATTERY COMPANY

Memorandum

Chas. Edison

"2"

5/14/18

6th: Production lost through strike in Iron Load Department May 10th
1/2 day, 990 cells.

7th: Production lost through strikes in Tube Assembly and Tube
Loading departments weeks ending March 2nd and May 18th, 3,750 cells

8th: Production lost on account of help staying out. Average 5% of
total, 7,025 cells.

9th: Delay on account of non-spillable valve, six weeks.

Total loss of production due to above causes, 73,175 cells

CC S.H. Mambert
T.A. Edison

Robert A. Bradman

Battery Storage

MEMORANDUM SERVICE DEPARTMENT OF EDISON STORAGE BATTERY COMPANY

MEMORANDUM NO. 177

FUNCTION Edison Storage Battery Co.

June 15, 1918.

SUBJECT Export Division

Mr. H.G. Thompson,
Vice President and
Gen'l Sales Manager

for Mr. I.N. Davies
Office Manager

for Mr. W. Bremer
Bill Clerk

Yesterday I paid my first visit to our new Selling Division, the Export Division of E. S. B. Co. in New York City to go over their accounting, and in this connection several matters came up which I thought best to reduce to memorandum form for your information.

Mr. Stevens is in urgent need of a complete copy of our price list on parts. I understand that he sent a man here to make a copy of Mr. Bremer's book. I would advocate that the billing department of Export Division be given the same information as the billing department of the Selling Division, as they have the same problems confronting them in regard to making out invoices. Copies of all data which will be useful should be supplied them.

The shipping department is requested to date all packing lists for the Export Division with the date that the shipment is finished packed, regardless of whether the same is shipped or not. This information will be of material assistance to Mr. Stevens.

I would suggest that you have Mr. Yeale furnish Mr. Stevens each week with a list of orders ready for shipment. These possibly could be made up late Friday afternoon and mailed on Saturday morning so Mr. Stevens could have them the first thing Monday morning, which would enable him to plan his week's work.

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CC Mr. Van Nuis, Mr. Jacobsen.

ARTHUR MUDD, Secretary,
Edison Storage Battery Co.

Mr. Mambert, confidential:

This is something radically wrong in the relations of the two selling divisions. It is too bad that we waste our time arguing about internal things when we should be devoting our energies to production and sales.

I spent a very profitable half day with Mr. Stevens. We went over matters with regard to accounting at the new Export Division of E. S. B. Co. and I think we are going to get along very nicely. Mr. Stevens wants to do things the way they should be done and the way we want them done, and it is certainly a pleasure to deal with a man of his type.

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Arthur Mudd
ARTHUR MUDD, Secretary.

Mr. S. B. Lambert;

June 19, 1918

DIRECTORS,
Edison Storage Battery Co.

I attach hereto copy of our contract with the International Nickel Company. The Government price of nickel has been established at 35¢ and the International Nickel Company advise us that we are the only one of their customers now paying less than the Government price for our nickel and have asked us to bring up our price on reduced nickel to 34¢ per pound at once. On the basis of our present deliveries of approximately 80,000 pounds per month, this would mean an increase of \$4,000.00 per month. Our present contract has 18 months to run. It is fair to assume that the increase will mean at least \$4,000.00 per month during that entire period.

They are willing to consider redrawing the contract on the basis of a further extended period at this time.

Your especial attention is invited to the two closing paragraphs of the contract. They make no claim with reference to their costs being greater from the standpoint emphasized in this paragraph; that is, Governmental restrictions in the import or export of materials. These have remained unchanged and any change which would affect us would naturally affect their entire operation so that this clause is not pertinent at this time. The final clause of the contract is, of course, a very particular one and reduces the contract to the instant back of it.

The International Nickel Company have always been able to deliver material as rapidly as we needed same and they now advise me that they will continue to do so just as long as our account is paid promptly within the ten day period and they cannot make shipments if there are unpaid bills on hand when shipment must be made and on this platform they stand.

The very advantageous feature of the contract is the fact that our needs are covered in a very peculiar way with a minimum of 5,000 lbs. per contract year and a maximum of 2,000,000 lbs. per year. The question presented is whether or not it is good business policy since our requirements are confined to one source of supply and grant them the increased price which would cost us in round figures \$72,000.00 under the unexpired term of the contract and negotiate a new contract subject to decline when prices return to a more normal condition or to insist upon the filling of our contract, permitting us to meet the situation as we best may with the International Nickel or another possible source of supply on January 1st, 1920.

RECOMMENDATION: If the Directors of the Edison Storage Battery Company feel that a new source of supply can be made available by the first of January 1920, the undersigned recommends that we stand on our contract price. If, however, we are tied indefinitely to the International Nickel Company, I then believe it the course of wisdom to grant the desired increase at this time.

I promised to advise the International Nickel Company our conclusion in the promise not later than the 27th of June.

ACB:RJR

A C B

[ATTACHMENT]

The International Nickel Company
45 Exchange Place,
New York City

AGREEMENT dated June eighteenth 1934.

THE INTERNATIONAL NICKEL COMPANY, hereinafter called the "Seller, and
EDISON STORAGE BATTERY COMPANY of Orange, New Jersey, hereinafter called the
"Buyer", do hereby agree as follows:

During the period beginning January 1st, 1915 and ending December 31st, 1919 the Seller shall sell and deliver to the Buyer, and the Buyer shall purchase from the Seller, upon the terms and conditions hereinafter set forth, all the nickel in any form or combination which shall, during said period, be used in manufacture in any works which the Buyer may, either directly or indirectly (as by stock ownership), own, operate, lease or control; PROVIDED, however, that the amount of such nickel shall in no event be less than 2,000 lbs. per contract year, and that the Seller may elect not to sell and deliver to the Buyer in excess of 2,000,000 lbs. per contract year.

The Buyer shall give to the Seller at least thirty (30) days written notice of its nickel requirements. Should such requirements exceed 100,000 lbs. in any calendar month at least sixty (60) days such notice shall be given. The Seller shall fill all orders with reasonable promptness.

All nickel deliveries hereunder shall conform to the following specifications:

FORM: Reduced Nickel; Metallic Nickel in Shot, Plaquettes or Blocks; and Metallic Nickel in Bars 1-1/2" x 2-1/2" x 30" or 1-1/2" x 5" x 20".

QUALITY: For Reduced Nickel 95% Metallic Nickel Contents, For Metallic Nickel as above 99% Nickel Contents.

All cobalt contained in nickel delivered hereunder shall be considered to be, and shall be paid for as, nickel.

The Buyer shall receive and pay for all nickel deliverable hereunder according to the following terms and conditions:

PRICE per pound: For Reduced Nickel 80¢; for Metallic Nickel as above 85¢

TERMS: Net cash ten days from date of Seller's invoice; payment to be made to Seller, or to any agent expressly designated by Seller to receive such payment, in funds payable at par in New York City.

All nickel deliverable by the Seller hereunder shall be delivered
P. O. B. Cars at Seller's Works, at Bayonne, N. J.

[ATTACHMENT]

If, at any time, and so long as, the Government of the United States, the Dominion of Canada, or any of the latter's provinces shall in any way restrict or affect the import or export of nickel ore, copper nickel ore, nickel matte, copper nickel matte, nickel oxide or nickel metal and thereby increase the cost of finished nickel to the Seller at its delivery point at Bayonne, N. J., the Seller may increase the price of all nickel deliverable under this contract by the amount of such increase of cost. The Seller shall, however, give written notice to the Buyer of any such increase of cost and the Buyer may thereupon within thirty days of the receipt of such notice terminate this contract by giving written notice to the Seller of its desire so to do.

If, for by reason of acts of God, strikes or other causes beyond its control, the Seller shall be unable to make delivery of nickel hereunder, or if, for similar reasons, the Buyer shall be unable to receive deliveries hereunder, this agreement shall be suspended so long as such conditions shall continue.

THE INTERNATIONAL NICKEL COMPANY

(signed) W. A. Postwick

ASSISTANT TO THE PRESIDENT

(signed) Thos. A. Edison, President

for

EDISON STORAGE BATTERY COMPANY



Battery Storage

Purchasing Service Department Memorandum:

In reply refer to:

A1

June 28, 1918.

Directors: Edison Storage Battery Company.

Subject: International Nickel Company.

The undersigned desires to report the result of a further interview with the representative of the International Nickel Company. Mr. Lawson stated that at the request of the Government he had visited Washington last week, and had been instructed that the shortage of nickel made it necessary for them to very carefully allocate every pound of nickel available, at least during the remainder of this year, and he wished to know just what use we were making of the nickel they were furnishing out, I explained to him in detail, and he has assured me that they will treat every phase of our requirements as absolutely essential, and rate us on deliveries accordingly.

The International Nickel Company will manufacture anodes in accordance with any reasonable design which we may submit, and in consideration of this they ask that if an economy is effected that we grant them an increased price from 35 cents per pound to 38 cents per pound, the latter being the Government price.

Mr. Lawson agreed upon my explanation that since we have approximately \$3,000,000.00 worth of unfilled orders on which we would suffer a loss of approximately \$30,000.00 if we increased reduced nickel from 30 cents a pound to the Government price of 35 cents a pound, that in consideration of our agreeing to the increased rate, following our present commitments, they would continue deliveries this year at contract price. This would mean the new price would be effective about January 1st.

The International Nickel Company wish us to study our shot nickel situation and ask if we cannot use a lower carbon nickel, as there is a particular need for the high carbon shot nickel we are now receiving.

I promised to submit the foregoing facts to the Board of Directors, and to advise Mr. Lawson of your final decision in the matter within a fortnight.

Respectfully submitted,

(Signed) A. C. Emery.

ADE:EF

"Marsh: Wish to thoroughly know about this situation.
Return this after thorough investigation.
"Mamhart,"

Edison Storage Battery Co.

CHARLES EDISON
PRESIDENT
OF THE BOARD

TRADE MARK
Thomas A. Edison

ORANGE, N.J., U.S.A.

IN REPLYING
ADDRESS THE COMPANY
AND REFER TO

THOMAS A. EDISON PRESIDENT
STEPHEN G. HARRIS VICE PRESIDENT
ROBERT A. BACHMAN SECRETARY
H. G. THOMPSON TREASURER
H. F. MILLER MANAGER
ARTHUR RUDD RECEPTION

TO ALL
EDISON
STORAGE
BATTERY
EMPLOYEES:

August 1,
1918

Subject: Your Part in Helping to Win the War.

1. Storage batteries are very essential in winning the war; that is one thing every employee in the Edison Storage Battery Company should realize.
2. Lack of storage batteries means delay in making and handling munitions; delay in handling Army and Navy supplies at terminals, warehouses and docks; delay in coal mining; delay in lumber shipments and ship building, etc., etc.
3. Airplane wireless outfits, mine locomotives, industrial trucks and tractors, electric safety mine lamps, and many other kinds of apparatus used in the war, must be provided with storage batteries or they cannot be operated.
4. Delay must be overcome. Every American or Allied citizen will do his bit to increase production; it is his part in winning the war.
5. Every Monday and Thursday, our Advertising Department will send you Foreman a supply of bulletins containing reproduced photographs showing what some of the storage batteries which you have helped to make are doing to win the war.
6. These bulletins are for you. Take them home. Show them to your friends. Let them know how you are doing "your bit."
7. Remember our part (yours and mine) is to make more storage batteries, and then MORE storage batteries until the war is won by the Allies.

Thomas A. Edison

EDISON STORAGE BATTERY COMPANY
MEMORANDUM

August 29, 1918.
LL/RS

Mr. Meadowcroft:

Please advise Mr. Edison that for over two months I have been trying to obtain some nickel hydrate with bismuth added in order to carry out the tests he wanted made.

Orders were sent to Silver Lake two months ago and several additional requests for this material have been made, but every request has been met by the statement that no bismuth is obtainable. This is probably true, and this note is not to complain of the Chemical Works, but to advise Mr. Edison that I have neither forgotten nor neglected this experiment.

As soon as the necessary materials are delivered, I will begin these tests immediately.

LAMAR LINDEN

EDISON STORAGE BATTERY COMPANY
Memorandum

August 29, 1918.

LL/RS



Mr. Charles Edison:

Pursuant to your request, I am suggesting a general policy for conduct of Research Department.

(1) The labor market demands that women - not girls - be substituted for the present staff of observers.

The young men now in the Department appear to have no interest in their work and when under no authoritative observation, spend their time in sky-larking, yelling and swearing to such an extent that even the neighboring residents have complained.

This condition has not improved, but is, apparently worse.

(2) The male staff should consist of:

(a) One Head of the Department who would oversee it, and be responsible for its conduct and results.

He should have some reasonable hours in the daytime and be required to visit the Department at least 3 times weekly at night and have a general idea of how the work is being conducted during the night shifts. He should be a man of sufficient age to command the obedience of the staff under him and compel efficient work.

He should be something of an electro-chemist though not necessarily a skilled one. Mr. Petersen and myself can furnish the needed knowledge if the Head knows enough to understand the principles and reasons for suggested investigations.

Such a man would be about 35 years old and at the present, rates of employment would cost about \$65.00 per week.

(b) One assistant to the Head of the Department. Mr. Cook would be an excellent man for this. His hours should not be exactly the same as those of the Head. He should report about 2 hours later in the morning and stay 2 hours later in the evening, so that there would be 10 hours each day of practically direct management by the Head and his Deputy.

(c) One Man to take charge after the assistant Head leaves. Albrecht would be a good man.

(d) One Man to take charge after second man (c) leaves. He would stay until the assistant would come in on the following day and in this way have 2 hours on duty while the Head is in the office. He can report and discuss the work of the previous evening with the Head of the Department, so that the responsible manager would be in personal contact with 2 of the 3 shifts.

(e) One man for plotting curves and doing other work of a like character. Day shift.

EDISON STORAGE BATTERY COMPANY
MEMORANDUM

August 29, 1918.

LL/RS

(2).

(f) One assistant for two night shifts. That is the one man would come on after the first night shift and stay until two or three hours after the second night shift had come on.

(3) The female staff would consist of such a number of women as the conditions would require. One of these, on the day shift, should be a good stenographer and typewriter so that all notes could be neatly kept and in triplicate. She should also file records and keep up all file indexes. The general specifications for these women would be:

- (a) Not under 25 years old, preferably over 28.
- (b) Neat, clean and careful of their persons. Only women of this type will be careful about making exact observations of scientific experiments.
- (c) No "good lookers". The less personally attractive, the better for the work.
- (d) In case matrons are required for the night shift, they should be middle aged, say 35 to 42 years old. Young women could not exercise the requisite authority. Old women have not enough energy.

Matrons in every case should perform work and have regular duties in addition to supervision of the female staff.

These suggestions would of course be modified after a little practical experience in running the Research Department after the manner outlined.

LAMAR LYNDEN.


Battery - Storage

EDISON STORAGE BATTERY COMPANY

INVENTORIES AS AT AUG. 31, 1918.

EDISON CHEMICAL WORKS DIVISION

<i>Good Things</i> <i>What kind?</i>			
Material & Supplies			
Reduced Nickel	\$ 19,600.00		
Tube Ends	30,800.00		
Iron	35,700.00		
Sheared Bars	2,800.00		
Mercury	2,900.00		
Acids	7,100.00		
Oxides <i>(Banned New Charge)</i>	22,300.00		
Potash	4,200.00		
Soda	5,200.00		
Coke	6,700.00		
Fuel Oil	1,500.00		
Mill Supplies & Misc	<u>45,700.00</u>	\$ 191,500.00	✓
Work in Process			
Nickel	123,750.00		
Iron	60,500.00		
Chemicals in process	<u>29,500.00</u>	213,500.00	✓
Finished Stock			
Iron	59,400.00		
Nickel	36,700.00		
Mercury Oxides	6,800.00		
Reclaimed Iron	900.00		
Anodes	<u>1,100.00</u>	<u>104,900.00</u>	✓ 509,900.00 ✓
Phenol Resin & Wax Dept			
Material & Supplies			
Phenol	14,100.00		
Cartons and cases	5,700.00		
Stearic Acid	<u>4,600.00</u>	24,400.00	✓
Work in Process			
Blanks	3,800.00		✓
Finished Stock			
Blanks		<u>12,500.00</u>	✓ 41,700.00 ✓

MANUFACTURING DIVISION

<i>3750</i>			
Material & Supplies			
Steel	\$ 450,000.00		✓
Tool Room stock	9,700.00		
Mill Supplies & Misc	55,100.00		
Lumber	<u>34,700.00</u>	\$ 547,000.00	
Work in Process			
Finished cells assembled	89,300.00		
" " filled	289,300.00		
Rubber parts	116,100.00		
Hydrate	40,400.00		
Iron	85,100.00		
Steel Parts	<u>769,700.00</u>		

2.

Rolling Mill Dept	10,200.00		
Box & Tray Dept	14,000.00		
Manufacturing orders	133,400.00		
Jobbing orders covering work for various Div's	<u>47,500.00</u>	<u>1,544,000.00</u>	2,091,000.00
SELLING DIVISION			
Finished Stock			
Finished cells assembled	2,500.00		
" " filled #1	285,500.00		
" " " #2	21,200.00		
3rd class " in transit	4,300.00		
Parts	48,000.00		
Trays	1,700.00		
Battery Rental	8,500.00		
House Lighting Equip	2,500.00		
Mine Lamp Accessories	1,400.00		
Stock at New York	11,100.00		
" at Chicago	9,200.00		
Cells on consignment	<u>16,500.00</u>	412,300.00	
Repair Department			
Work in process	5,500.00		
3rd class cells	<u>14,700.00</u>	<u>20,800.00</u>	432,600.00
Repair orders			
EXPORT DIVISION			
Finished stock ready for shipment		2,600.00	2,600.00
POWER SERVICE DIVISION			
Coal	31,000.00		
Repair parts & supplies	<u>3,000.00</u>		<u>34,000.00</u>
			3,111,800.00
CONTROL DIVISION			
Reserve for			
Int. on Investment	129,000.00		
Administrative Exp	27,000.00		
2nd class cells	22,000.00		
Slow moving & obsolete stk	<u>50,000.00</u>		<u>228,000.00</u>
			2,868,600.00
EDISON STORAGE BATTERY SUPPLY CO.			
Pacific Coast	72,300.00		
Boston	5,100.00		
Philadelphia	600.00		
Control, battery rental	<u>51,400.00</u>	<u>129,400.00</u>	
			\$3,013,200.00

TOTAL \$3,013,200.00

St. Battery Sample

EXPERIMENTAL AND DEVELOPMENT ENGINEERING SERVICE
LABORATORY OF THOMAS A. EDISON.

Battery Storage -
Edison Storage Co.

TO: Mr. Charles Edison

REFER TO MEMO. A-106

SUBJECT: Storage Battery Engineering Department

DATE: September 18th, 1918

REFER TO:-

FROM: John F. Constable

*SPC
This looks ok -
See H. Smith
+ then see
me together.
10/24/18*

Being a very cold and wintry day I am confined to my office and am consequently getting down to my promise of writing out for you my ideas in connection with the Storage Battery Engineering Department, as per our conversation of last week.

I quite agree with you that the Engineering Department of as large a Division as the Storage Battery should come directly under the General Manager of that Division and be responsible to him, and yet be connected with the Central Engineering Head to promote the standardization of methods and the most economical use of general engineering facilities.

My recommendation is that you establish an Engineering organization in the Storage Battery along the following lines:

- 1 - That you appoint a Product Engineer.

If the Storage Battery Company were entirely separate from any other Company the Product Engineer would probably have the title of Chief Engineer, but to avoid duplication of titles, and in order that the centralization scheme may be worked out, I would suggest using the title "Product Engineer".

I recommend that Mr. Harold Smith be appointed to this position, and that he report directly to you, or to whoever you put in charge of the Storage Battery, but he would be affiliated with me, as Chief Engineer, and with the Product Engineers of other Divisions for our mutual cooperation and benefit.

The Product Engineers' duties can best be summarized by saying that he is Mr. Edison's direct representative in that Division, and should consider the engineering end of the business as a whole, as Mr. Edison would if he were there in person. In other words, the Product Engineer should keep in touch with the Sales Department and the performance of the product in the field. He should also keep in touch with the Manufacturing Department as to methods of manufacture to produce uniformity, production and low costs, consistent with quality up to Mr. Edison's standard.

In order for him to fulfill these functions it will be necessary for him to have experimental facilities and research facilities for determining causes of irregular performances either in the field or in the factory, and also testing facilities to assure himself of the
Copies to:-

EXPERIMENTAL AND DEVELOPMENT ENGINEERING SERVICE
LABORATORY OF THOMAS A. EDISON.

TO:- Mr. Charles Edison REFERENCE TO MEMO. # 12-106
SUBJECT:- Storage Battery Engineering Department DATE: September 18th, 1918.
REFER TO:-
FROM:- John F. Constable

-2-

uniformity and quality of the product.

I would recommend that you outline the following organization:

- 1 - Mr. Harold Smith as Product Engineer. Reporting to Mr. Smith and Experimental and Research Department, now represented, I believe, by Mr. Lyndon.
- 2 - A Development Department, as now represented by Mr. Peterson's activities.
- 3 - A Testing Department, as now represented by Mr. Cook, and the present Research Department.

I believe that this end of the business should not be called "Research" as it is really check testing the various products and is largely a routine matter.

With these three main functions directly under your Product Engineer, I believe that you should leave the details of working this organization out to him.

As the Storage Battery Manufacturing Department is so closely allied to the Storage Battery Chemical Works, I would also recommend at the same time that you appoint Mr. H. H. Cox, Product Engineer for the Chemical Works, and that he be given the responsibility and authority necessary to fill that position. Mr. Cox already has, through the Laboratory Organization at Silver Lake, the necessary experimental and research facilities, and testing facilities.

It is my idea that the Central Laboratory, with Mr. Stewart as Manager, will furnish the necessary facilities along these lines for the Product Engineers of the Silver Lake Divisions. Mr. Cox and Mr. Smith, of course, will be very closely related.

I have talked this organization over with Messrs. Stewart, Cox, Smith and Monahan and the above is endorsed by them all.

In our conversation you brought up the question "or how far the Product Engineer was interested in process and manufacture?" The Product Engineer is naturally interested in everything pertaining to his product, and should have at any rate an advisory say in such matters. Consequently, I think it would be advisable to ask Mr. Smith to appoint a Manufacturing Committee in the Storage
Copies to:-

EXPERIMENTAL AND DEVELOPMENT ENGINEERING SERVICE
LABORATORY OF THOMAS A. EDISON.

TO:- Mr. Charles Edison 171 12-106
SUBJECT:- Storage Battery Engineering Department REFER TO MEMO. #
DATE: September 18th, 1918.
REFER TO:-
FROM:- John P. Constable

-3-

Battery, consisting of himself and Mr. Monahan, Mr. Roscoe Smith, and any others whom he may need so they can frequently discuss the various problems which are so closely inter-related.

I trust the above will meet with your approval, and I am sure that if you will start Mr. Smith and Mr. Cox off with the proper "punch" that the organization will work itself out very smoothly.

JPC:GAF

Copies to:- file:

Edison Storage Battery Co.

CHARLES EDISON
CHIEF OF THE STAFF

THOMAS A. Edison

ORANGE, N.J. U.S.A.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON, PRESIDENT
S. C. HANDEY, VICE-PRESIDENT
ROBERT A. HANDEY, SECRETARY
H. B. THOMPSON, TREASURER
H. F. MILLER, ASSISTANT TREASURER
ARTHUR MUDD, ASSISTANT SECRETARY

December 27, 1918.

Dear Mr. Thompson:

Peace talk brings with it a train of discussion which in business circles sooner or later gravitates to whether or not sales prices should be decreased and if so, when they should be decreased. Already prices of automobiles have in some cases been greatly cut, with more to follow.

With this in mind you will no doubt be interested in my thoughts on the matter of price reduction at the present time and since the Harmon Automobile Company has already given voice to some of my thoughts, I am passing them on to you.

Looking at the matter from the true standpoint of the fundamentals underlying price reduction we find -

- (1) There has been no reduction in the cost of labor and materials entering into our Edison Storage Batteries. Not only that but we must contract now for materials to be used some time hence. THE MATERIAL MARKET AT THIS MOMENT IS HIGHER THAN IT HAS EVER BEEN, therefore, materials entering into our product must be purchased at the top price. The price of labor you know has not decreased, therefore there can be no reduction in our selling price due to the reduction in the cost of material and labor.
- (2) Sometimes an over-supply of products must be sold, regardless of their cost (the law of supply and demand). This is not the case with the Edison Storage Battery in view of the fact that in our case there is an over-demand to the extent of our entire output for several months. Therefore the law of over-supply cannot be the cause of our reduction in price at this time.
- (3) In some lines of business, prices were set unduly high to be slashed later for effect; in other words so as to have a fictitious high price to lay off at the first cry of peace. In no case does this apply to the Edison Storage Battery, inasmuch as our prices were naturally increased where increased costs absolutely forced it and then not until the last minute and at the time when our previous costs were untenable. Therefore, having no fictitious prices to remove we cannot reduce our prices on this score.
- (4) The substitution of inferior materials and the reduction of labor entering into the manufacture of our Batteries might afford

another cause for price reduction. The policy behind all products of the Edison Laboratories does not permit us to lower the qualities of our materials or workmanship in order to market an inferior product. Therefore, since we cannot substitute inferior materials and labor, we cannot reduce prices on that score.

Summing up, therefore, there is no reduced cost of materials and labor; we have no over-supply of our product; we have no fictitious high price to lop off; and we will not substitute inferior materials or labor; therefore it is not possible to reduce our selling price. It naturally follows that anyone purchasing Edison Storage Batteries has a stabilized investment in the future as well as in the past.

Marked

Carbon Copy to - Messrs: Thomas A. Edison,
Charles Edison.

Battery—Storage

Edison Storage Battery Co.

CHARLES EDISON
PRESIDENT
OF THE CO.

THOMAS A. EDISON
Thomas A. Edison

ORANGE, N.J. U.S.A.

THOMAS A. EDISON PRESIDENT
E. B. HANBERT VICE-PRESIDENT
ROBERT A. MAMBERT SECRETARY
H. S. THOMSON TREASURER
K. F. MILLER ASSISTANT SECRETARY
ARTHUR MUGD SECRETARY

OFFICE OF
VICE-PRESIDENT AND GENERAL MANAGER
Gen. Sales Mgr.

Copy sent all Salesmen
TO ALL BRANCH MANAGERS:-

CC to Mr. Mambert.

January 3rd, 1919.
HOT-2-11

Dear Sir:-

With this, the beginning of the calendar year, and with the approach of our new fiscal year, I deem it opportune to review the past 12 months and briefly give you some idea as to what may be expected in the way of deliveries and what it will be our duty to dispose of for the next 12 months—especially from the first of March to February 28th, 1920.

During the past 12 months we have, as you know, had our hands full executing Government orders, which have upset our commercial deliveries; and as a matter of fact so disturbed our production of standard types that we never have known just what we could ship to manufacturers, or when.

The War Industries Board, together with the Fuel Administration, restricted our output for ordinary commercial purposes in order to divert as much of our production to essential Government purposes as they deemed necessary in stimulating the output of coal and other necessities as a war measure. It was naturally our patriotic duty to take care of the Government requirements first. It may be news to you, but true nevertheless, that with the exception of batteries for industrial truck and tractor use, we did not of ourselves solicit direct Government business. The Radio Development, Aircraft and kindred departments of the Government, placed large orders with us for small types, such as the L's, M's, W's, B's and J's, and G4, such that for some time our 3/16" tube production with every possible facility at our command was given over to the manufacture of the above types for Government requirements. We were hard hit in the matter of labor, as was every industry in this section, and not alone was it impossible to secure labor at any price, but the tool makers of this section went on a strike for almost prohibitive hourly rates, and with the Public Service output of current for all but direct Government purposes curtailed, and even with us curtailed to quite some extent, you can realize that business "as usual" was impossible. We have been criticized by some manufacturers very severely for non-delivery, but these criticisms in some cases were based on the selfish motives of those who would first their own interests first, and with but little thought of either the Government necessity nor of their competitors' rights or needs. Every energy and every resource were bent to the one purpose. Not for a day until Peace came were we left in doubt as to our line of action.

"In a day when it was expected that the War would still be its whole business the Nation suddenly faced Peace and now enters a year beset with problems. There was Leadership in war, but Industry must find its own way through the adjustments of Peace. In Special Year is ahead. Something more than Optimism must be brought to tasks that will be greater even than those of War-----".

Courage, Insight and the Determination to win must mark every conscious action of ours during the New Year.

Our production of batteries for Government war purposes is practically at an end. We still have left some undelivered orders but the next few weeks will see these out of the way and we can begin to see our way clear to turn our entire output over to the commercial interest, whom in a measure it might seem we have neglected.

With the above tasks accomplished we must concentrate on ways and means to secure new business along our accustomed lines of activity and bring to bear our utmost intelligence in dealing with the problems that will confront us. The art of selling will call for our greatest resourcefulness, and as never before. There is a tendency to wait and watch for lower prices and to use this as an excuse for inactivity of business. One only has to reflect as to his own living expenses to obtain the answer. Labor costs have not been reduced, nor will labor stand a cut for some time to come, if ever, with the possible exception of special war workers who were necessary at any price. The material market does not show any particular tendency to reduce prices. We cannot judge of lower prices from what a few of the automobile manufacturers have done, for their increased prices during the last year were based somewhat on their decreased production as made imperative by order of our Government; and now that the limitation on their output has been partially withdrawn and re-adjustments made, such that the manufacturers can produce in greater volume, and the outlook ahead for their former regular production bright, they have in some cases announced reduction in price.

It is agreed by some of the large industries that steel being the prime part of our cell, and that as steel will be reduced in cost, that we should reduce our prices. Let me say for your information that the entire cost of steel entering into an A4 cell costs but 87%. Therefore reduction of any consequence in the cost of steel would have no effect whatever in our prices.

When food stuffs, hats and shoes show a substantial reduction in price we can possibly expect a reduction in our prices, but as long as we pay \$8.50 for a former \$5. hat, and \$10. to \$12. for a former \$5. pair of shoes, there is little excuse for the customer to expect a price reduction for some time to come. Spot lead is lower somewhat in price than formerly, but with lead at 6-7 and Antimony at 8, with the high costs of lead-oxides and labor, I do not believe you can look for a great reduction in price of lead batteries.

Our production of standard types I am happy to say is increasing week by week and the increase will be held as fast as gained. We are now producing a greater number of cells per day, both by types and in A4 equivalents, than ever before, much that we will have available a greater number of cells for distribution this year than in any previous year of our history. Our unfilled orders have been reduced and are being reduced at a satisfactory rate and within three months we will have completed our back unfilled orders and will have only our current unfilled orders on hand.

As of Jan. 1st, 1919 you may promise delivery of new orders in any of our standard types in from 90 - 120 days; by April 1st to 15th in from 60 - 90 days; and by June 1st in from 30 - 60 days. If delivery assumes an all-important aspect in any particular case I request that you refer the matter with full details to me and a special arrangement may be effected for an earlier delivery. Every District Office must not expect that every order can be made special, and therefore you must do your best to defer the delivery to the schedule of dates as given above.

The allotment of cells as given you for the first six months of our last fiscal year increased by 10% will be the number of cells which it is expected you will be able to

sell, and which it is necessary to dispose of. Competition this year will tax your courage to the utmost, but I believe that "Where there's a Will, there's a way" and I know that you will find a way.

If you can suggest any improvements as to our manner of doing business that will aid you, please do not hesitate to inform me. We will all have to work together and I bespeak of you your earnest and hearty co-operation with those at Orange and I can assure you that by mutual co-operation and assistance I know we can realize our ambition to perform the tasks set before us. The last two months orders have fallen far behind any previous two months during the last three or four years and therefore I wish to impress upon you the necessity for immediate action in securing new business. Put on your thinking caps and take a hitch in your harness and start out immediately and fill us full of new business. It has got to be done, so right-about face and do it!

Sincerely,

Battery - Storage

RESOLUTION NO.

DATE January 15, 1919.

EFFECTIVE March 1, 1919.

FROM: Vice President and Financial Executive.

TO: The Board of Directors, Edison Storage Battery Co.

SUBJECT: Conference of the Board of Directors, Edison Storage Battery Co., held January 15, 1919.

At a co-operative conference of the Board of Directors of the Edison Storage Battery Company, held this day, January 15, 1919, Present:

Messrs. Charles Edison, Chairman,
 Stephen B. Mambert, J. F. Monahan
 H. G. Thompson, C. S. A. Williams
 H. F. Miller, J. V. Miller
 Arthur Mudd, Lucian A. Marsh.

It was co-operatively agreed that effective March 1, 1919, the fundamental principle would be carried out of recognizing the three main branches of the business, namely, Chemical Works, Manufacturing and Selling (the latter of which includes both Domestic and Export) as separate entities to the extent that all purchase agreements covering the supply of either finished product, or parts of finished product, or work with parts of raw material, or in connection with the manufacture thereof, should be supplied under a fixed price. Said fixed price to be established and presented at 2 o'clock in the afternoon of the Wednesday next preceding the new quarter.

----- oo -----

It was decided that the function of the Secretary as definitely outlined in the By-laws of the Corporation is to have general supervision over all the records of the Company, and that it is his duty to call to the attention of the Division Managers any irregularities or differences existing in their records, or any other matters which in his opinion should be drawn to their attention. It is entirely within the scope of the function of the Secretary, and it should be his duty to observe whether or not such matters as he may draw to the attention of our respective managers in accordance with the above are properly acted upon, and if any of these recommendations should not be acted upon, it becomes the duty of the Secretary--if in his opinion they are sufficiently important to warrant executive action--to specifically call the same personally to the attention of the Vice President and Financial Executive. After making the recommendations directly to the Managers and personally appealing to the Vice President and Financial Executive for executive action relative thereto, the Vice President and Financial Executive will assume responsibility therefore to the President and the Chairman of the Board.

Signed for the Meeting,

Stephen B. Mambert,

Vice President and
Financial Executive.

2 COPIES TO: MR. STEPHEN B. MAMBERT--(2)

USE THIS FORM TO PUT IN WRITING MATTERS OF A CONTINUING NATURE, SUCH AS BETTER FINANCIAL PRACTICES--ELABORATING GENERAL POLICIES AND INTERDEPARTMENTAL RELATIONS.

Telegram

Feb-18/19

W.H. McDougall E

Inform Mambert
and Emery that I am
agreeable to deal with
Sherwin Williams.

Edison

19
 $\frac{120}{180}$

March 10, 1919.

Mr. Edison:

I spent a day and night in Washington last week, most of the time with our friend Butler, who was greatly pleased with my going down.

I saw Mr. Hanford. After various contingencies, he was transferred about two weeks ago and is now in the Historical Department of the Navy, under Admiral Kimball. He seems to be quite happy and contented.

Mr. Hanford thought you would be interested in the following extract from the "Radio Press Bulletin" dated October 13, 1918. He came across it in his researches and thought you would be interested, as it goes along way towards verifying your own views, which you expressed at the time you were down in Washington in 1917.

The extract is as follows:

"Admiral Sims addressing the American Editors visiting England said he asked Americans how many submarines they supposed were operating against merchantmen and transports and that he never got an estimate of less than fifty, sometimes one hundred. As a matter of fact the average was eight or nine, sometimes twelve or thirteen"

15 was own
& measured 30
including
measurment

6

measurment

Mr. Edison:
Everyone whom I see
asks how I get on, so I say
that hearing news to the
contrary, I feel sure you
are quite well.

I hope you are enjoying
your vacation to the limit.
You certainly deserve it, for
you had 3 years hard work
without much rest or change.

Meatavacof

3/13/19



ABSOLUTELY FIREPROOF

Battery-Storage

EUROPEAN

the Alcazar Hotel

43-45-47 W. 32ND STREET

JUST OFF BROADWAY

JOHN F. DOWNEY
MANAGING DIRECTOR

New York

March 14th 1919.

Mr Stephen B Hambert
Vice President
Edison Storage Battery Co
Orange N.J.

Dear Mr Hambert:-

I am in receipt of a very lovely letter from Mr Thompson with enclosure and wish to thank you personally for I know and appreciate that you are largely responsible for the same.

It has ever been a source of great help to me in my work knowing at least that YOU have a wider vision than most folk, and feeling that the day would come when you and I could perhaps get closer- thereby working towards what can only be a great big business by much broader policies than have prevailed.

I believe with you that the Edison Storage Battery Co's business has limitations only in proportion to a liberal view of the same backed up with courage, at the same time using care and good judgement.

There is one thing that worries me and that is our foreign business, which I am convinced will slip away from us the same as the Pleasure Vehicle business did because of the exclusive arrangements with the Detroit Co (Anderson). When the time arrives that my knowledge of this situation and the suggestions I think I could make for the benefit of the Co, are wanted I am ever at hand and ready.

Wishing you and yours the very best of health and a full measure of success you so well deserve, I am
Sincerely Yours,

Geo Drake-Smith

EDISON STORAGE BATTERY COMPANY

Memorandum

Desk #4-5-3005

April 23rd, 1919.

8

Mr. W. A. Meadowcroft, Confidential Secretary to
Mr. Thomas A. Edison.

Dear Mr. Meadowcroft:

I am attaching copy of telegram sent Mr. Edison on April 1st,
and also letter received by me dated April 12th from Mr. R. D.
Wagoner, resident of the Elliott Fisher Co., Harrisburg, Pa.

Mr. Wagoner is Chairman of the Legislative Committee, as yet,
of the N. E. L. A., and we are going to have the largest Con-
vention ever held in Atlantic City May 19th to 22nd. If
Mr. Edison should feel like granting Mr. Wagoner's request, I
believe that such a statement would be of some service to us, as
Mr. Wagoner is the best known man in the Electric Vehicle business.

personally, since I have been with this company (a little over
3 years) and prior to the selling out of the General Vehicle
Company's interests, this Company, and myself were greatly
indebted to Mr. Wagoner for giving us largely increased orders,
and for a great many friendly acts that have since held us with
the Walker Company very successfully, and I personally feel
under obligations to Mr. Wagoner, and am grateful to him as I
was in the employ of his former company for several years.

Thanking you in advance for calling this to Mr. Edison's attention,
and asking for reply one way or the other, I am, as ever,

Sincerely yours,

Geo Drake Smith

Meadowcroft - ~~say~~ ^{say} ~~account~~ ^{account}
is out of my line of knowledge
& I prefer not to give an opinion
This is first time I ever heard
of Wagoner's suggestion E

[ATTACHMENT]

April 24, 1919.

Mr. Geo. Drake Smith,
Edison Storage Battery Co.

Dear Mr. Smith:

The enclosed carbon copy of my
letter to Mr. Wagoner will explain itself.

I return, herewith, Mr. Wagoner's
letter to you and the copy of the telegram.

Sincerely yours,

Enclosures - 3.

CHARLES EDISON

DIVISION:

Memo. No. 16

SUBJECT: Electric Starter.

Date 4/25/19.

Mr. H. G. Thompson:

Referring to the Electric Starter that has been under development for some time, I believe that a big business will result from this if we can ever get it going, and it is our disposition to go right ahead with it and spend the necessary money to develop it if the starter is found satisfactory and practical.

In order that we may be in a position to take such action as we should take and push this right along, I would like to get from you the full story of this starter so that later on there may be no doubt as to who owns it, etc. The whole thing is hazy in my mind. What I would like is a sketchy story of the starter from its inception up to the present time.

CE/IWW

CHARLES EDISON.

ELIOTSON STORAGE BATTERY COMPANY

Memorandum

5-1-19 dic. 4-30-19
Desk fi

MR. CHARLES EDISON:—

SUBJECT: ELECTRIC STARTER.

The Electric Starter to which you refer in your memo #16, dated April 5, now owned and controlled by the Tidewater Equipment Corporation, of Portland, Me., was first brought to my attention some time in 1915. It was then known as the Jonney Starter and then owned by a Mr. Oberreich and a Mr. Jonney of Indianapolis, Ind. We came in contact with this through being called upon to furnish 5 coils of M for a demonstration which was then being made in Indianapolis in order that the then owners might demonstrate to their satisfaction the adaptability of Edison Batteries to this Starter, which it was hoped could be produced in large quantities at a low price and sold for gas pleasure vehicles as well as gas trucks.

The matters progressed for some little time. I discussed informally with your Father this Starter with the result that I had expressed to Orange two automobiles, one a Pathfinder and the other a Ford, to which these Starters were and had been applied for some time. We ran the Pathfinder to Silver Lake where your Father was then doing some special work that he might see the application and that we might get his ideas as to whether or not he thought it advisable for any of us as individuals of the Company to interest ourselves in the proposition. Your Father expressed the opinion only that the fundamental principles of this Starter were correct and if refined should make a good Starter and suggested to me that we follow this along for a time at least, the thought always most uppermost in our minds being that if we could help along in any way the organization of a Company to produce a Starter that we would naturally be the recipients of a considerable amount of business.

Some little time transpired when the Starter was more or less lost sight of when a Mr. Moulton, President of the Moulton Engineering Corp., of Portland, Me., became interested in the Starter and made an exhaustive investigation and report of the merits and patentable features of the Starter and he finally became interested in forming a Corporation to buy the patent rights and build a Starter. The Corporation was formed and he, Mr. Moulton, after several visits to Orange, induced a number of us to purchase stock and in discussing at this time, the matter with your Father he voluntarily suggested that he would like to interest himself at least in stock ownership. I think your Father, at that time, was inclined to invest a little more heavily than he did, but for some reason or other I rather had a hunch that he should not go very far from the fear that I had at the time that the promoters of the Starter would use him for the sale of stock and for other reasons to their best interest. I, myself, invested \$1,000, your Father likewise, Billy Ree \$500, and I induced John Miller, unfortunately, to invest \$500, for I believed at that time and still believe that eventually this Starter will be a success.

ELIOTSON STORAGE BATTERY COMPANY

Memorandum

-2-

The first effort on the part of the Corporation was to get the Esterline & Angus Company of Indianapolis to redesign the Starter for the reason that they had in the early stages of the work been interested in the development. Unfortunately for the Corporation, Esterline & Angus Company spent a great deal of time attempting to redesign the Starter with but negative results and at the cost of quite a little money to the Tidewater Equipment Corporation. Matters went on for some little time unsatisfactorily there being little or no money in the Treasury, when I felt that as your Father had invested and as there was a possibility of great development for the Battery Company it was about time that someone did something and I, therefore, made arrangements for a simplified model to be built in the Lab., the Battery Company to pay the Lab. for the cost of this, which after satisfactory arrangements with the Tidewater Company, they arranged to reimburse the Battery Company just as soon as they were in a position to do so. This Starter was completed and developed some little kinks and was then forwarded to Portland, when Mr. Hansen of the Moulton Engineering Company undertook to again refine this Starter with the result that a model was developed and placed on a Ford car and operated for some number of thousand miles, to all intents and purposes, very satisfactorily. The War came on and it was then impossible to raise any money and, furthermore, no shop could be found who would undertake to further develop one or two more models and there the matter has rested ever since.

I forgot to mention that Mr. Geo. Drake Smith was financially inveigled to invest \$500 in this Starter because he believed it to be a good thing. Mr. Smith and myself being bad losers undertook to see what could be done to revive the proposition and as Mr. Moulton had disappeared due to financial and other embarrassments, we finally had a new Board of Directors elected which we could control for a year at least and on that Board were a Mr. Sanford of Boston an investor to quite some extent, Mr. Geo. Drake Smith and myself, and two others. The Starter in the meantime had been shipped to Indianapolis so that Mr. Oberreich, the original owner and a present stock holder, could prosecute the further development and sale of the Starter. Mr. Geo. Drake Smith and myself took it upon ourselves to push this thing to a conclusion of some kind and, therefore, had the Starter reshipped to Orange where it now is.

I discussed informally with Mr. Monahan the possibility of refining the Starter further with the assistance of Mr. Hansen, whom I formerly mentioned, here at our plant at Orange. I was about to take this matter up with you when I received your memo which has resulted in this letter.

I am firmly convinced that the Starter can be made a commercial success and would strongly recommend, in which recommendation I am joined by Mr. Geo. Drake Smith and Mr. Sanford of Boston, that we arrange to have Mr. Hansen come to Orange at the Battery Company's expense and either perfect this present Starter or build one or two more models concerning which Mr. Hansen has some new ideas and then arrange, provided they are successful, to have some firm manufacture this or possibly for a limited time and in a limited number have our own Company make these Starters

ELIOTSON STORAGE BATTERY COMPANY

Memorandum

-3-

that the project may be carried on to a successful conclusion or entirely abandoned.

It must seem to you, from the foregoing, that having a financial interest in this matter I am desirous of getting my money out of it. This is true but with reservations. I feel somewhat guilty as it were, and please pardon me, for allowing your Father to become interested in this but my main purpose was not my own financial interest, although I was perfectly willing to share in any profits which might accrue to the Edgewater Equipment Corp., to build up a starter to which Edison Batteries could be successfully applied and to try and help promote a Corporation which would manufacture the Starters commercially in large volume, realizing that if this could be accomplished that the Battery business in this one source alone would be enormous. I still have more than \$1,000 worth of interest in this matter and would strongly urge that you consider this matter carefully and permit at least for your own satisfaction the building of one or two models which could not in cost exceed for all items \$1,000. I am perfectly willing, as far as I am concerned, to sell my stock for one hundred cents on the dollar to anyone who is sufficiently interested to acquire it provided such selling out would be to the advantage of this Company in any way, shape, form or manner. I would be further very glad indeed to have you talk to Mr. Geo. Drake Smith or Mr. Harold H. Smith or to make any investigation that you might desire, but whatever is done by us must be done immediately or else I fear that the control of the patents will pass out of the hands of the present owners and some of our other competitors might be sufficiently interested to bury it or further develop it for their own interests.

H. G. HEDGSON.

HGP/RHO

FUNCTION Edison Storage Battery Co.

May 5, 1919

SUBJECT Capital Stock

CONFIDENTIAL

*Agreed To Hold \$400,000 %
 Common \$400,000 %*

Mr. S. B. Manshart,
 Vice President and Financial Executive.

In the certificate of incorporation filed May 27, 1901 the authorized capital stock of Edison Storage Battery Co. was given as \$1,000,000, divided into 10,000 shares. The entire amount authorized was issued.

A certificate was filed October 7, 1910 increasing the capital stock from \$1,000,000. to \$3,600,000. the additional stock being like in all respects the stock before issued. Of the 25,000 additional shares authorized only 19,982 shares were issued at the time.

The last change in the capital stock was effected in November, 1917, when it was increased from \$3,500,000 to \$5,000,000., the latter amount being divided into \$2,000,000 of preferred stock and \$3,000,000 of common stock by changing 5,000 shares of common stock not yet issued into an equal number of preferred stock and by creating 15,000 additional shares of such preferred stock.

Of the 20,000 shares of preferred stock authorized, 18,013 shares were issued as of November 30, the balance of 1987 shares of preferred and 18 shares of common being not issued until February 26, 1919.

At the present writing all of the preferred and common stock authorized has been issued.

Thomas A. Edison owns 26,008 shares of the common stock and 19,592.33 shares of the preferred stock. Charles Edison owns 1,000 shares of the common stock and Mrs. Mina M. Edison owns 400 shares of the preferred stock.

You will recall in the last change of the authorized capitalization a somewhat involved arrangement was made as to the rights of the holders of the two classes of stock in regard to payment of dividends, and if it is proposed to further increase the capitalization by the issuance of additional stock, the subject will of necessity have to be given very careful consideration, as there will undoubtedly be a considerable difference in the rights of the stock which may be issued now as compared to that heretofore issued.

Will the additional stock, if issued, be common, preferred or second preferred?

1387-DUM17

SECRETARIAL SERVICE DEPARTMENT OF EDISON STORAGE BATTERY COMPANY

MEMORANDUM NO. 256

FUNCTION

May 5, 1919

SUBJECT

-2-

The initial cost of an increase in capitalization will be approximately \$1250., not including printing of certificates, if any. The cost would be divided about as follows:

Excise Tax - 5¢ revenue stamp on each \$100. certificate	\$500.00
State Tax - 20¢ for each \$1,000. increase	200.00
Filing Fees about	50.00
Legal Expenses about	500.00

The yearly cost would be \$1,000. represented by the Capital Stock Tax of \$1.00 for each \$1,000. of capitalization.

---000---

ALFRED H. REED,

Secretary. ✓

EDISON STORAGE BATTERY COMPANY

ORANGE, N. J.

"Ford Starter"

Dear Sir: 44-5035

May 6th, 1919.

Subject: Tidewater Equipment Corp.

Mr. R. W. Kellow,
Secretarial Service Department,
Thomas A. Edison Research.

Edison Storage Battery Starter

Referring to your memorandum #4620, above subject, pursuant to Mr. Harold H. Smith's letter to you of May 1st, 1919, in retto the same, beg leave to report:

While myself and some friends who are stockholders in the Tidewater Equipment Corp., were never kept well informed as to its progress, we were dissatisfied with the slow manner in which matters were being pushed, and I was glad of the opportunity to attend the stockholders meeting in Portland, Me., a few weeks ago. I arrived in Portland before the meeting of the stockholders, interviewing the Boston stockholders on the way, and was enabled at the meeting to go into the tide of affairs as to put us in virtual control of the Board of Directors, as I was elected as one of the directors, together with Mr. Robert W. Sanford, of Boston, who will cooperate with us, and two of the Portland people, who are only too anxious to cooperate with our interests for pushing the starter. Mr. R. H. Thompson was also reelected as a member of the Board.

At the meeting of the Board, resolutions were passed giving the Board of Directors full authority to sell the starter and put it out on royalty or to proceed in any due manner to push the same. In so many words, full authority given. With that authority, and Mr. Thompson's consent, I proceeded east to see the Indianapolis people and to talk with numerous manufacturers resulting in my bringing back the starter from Indianapolis the same now being in our possession in Orange.

After all my investigations, I am so thoroughly convinced that the starter, with a few little changes in it, which can be done economically, by Mr. Hanson, who designed the last starter, and who has agreed to complete the same at a comparatively small figure (not to exceed seven to nine hundred dollars, written proposals for the doing of which I have furnished Mr. Thompson with) will be successful. This work should be done in Orange and in my opinion the starter should be made in Orange by the Edison Co., and called Edison Storage Battery Company starter. There is no question but what it will do the work all right with the 5 cells of J3 battery, and that the whole cost including the battery at \$25.00 and the cost of the starter at \$25 to \$30 would not exceed \$60.00, and the same can be sold readily for \$100.00 leaving a margin of \$40 for dealers, and I am so convinced that this could be made the means of selling immense quantities of batteries that I would be willing to undertake, with our Company, and two men to sell a million dollars worth of batteries the first year after the starter was ready to delivery.

All that we need to sell this million dollars worth of batteries would be to sell, or rather equip 2% of all the Ford cars that are now running with the starter, to say nothing of equipping more Ford cars rapidly.

EDISON STORAGE BATTERY COMPANY
ORANGE, N. J.

Mr. Kellow

-2-

In addition to the Ford cars, this ~~starter~~ is adapted to trucks, and is the only method to my mind which gasoline trucks can be properly started with. This would mean, of course, future development but would mean an enormous business. I have friends among the officials of truck manufacturers, the Packard Motor Car Co., and the Pierce Arrow Co., and other large gasoline truck manufacturers, and have every assurance from several of them that they would be glad when this was perfected to take it up.

Finally, the Tidewater Equipment Co., of Portland, Me., have some indebtednesses which must be paid, and in the event that we will complete this starter and make a few of them here in Orange to start the ball rolling, I have agreed personally to furnish the money to pay up all these indebtednesses and am perfectly glad to do it, but must have the decision as to whether we are to perfect this starter and, as I say, make a few businesses at once. The debts are pressing, and it would be a great misfortune to have anything happen to this company at the present writing.

In addition to these small debts, about \$700.00, there are \$2500.00 outstanding in notes. These I have arranged for several renewals on which will carry them as long as some activity is shown for future business for the starter.

COPY
GEORGE EDWIN SMITH.

CC to Mr. Charles Edison, Mr. S. B. Hambert, and Mr. H. G. Thompson.



8107 0 YAM

Edison (Battery
Storage)
Electric Iron

MAY 28 '19

Feb. 19

Recd

Robert A. Bachman said he had made it at Edison and it
worked well. Think both trials making
commercially. x Should like to undertake it.

(Keep TLL var. 3? 4?
in box for battery)

[ATTACHMENT]

(Battery -
Storage) (1919?)

Mr. Edison - Consulting Eng.

This looks interesting -
Profits are often the result
of proper use of by-
products. Should we
go further in development
of this product.

Yes fine
10/2

Say

Battery (1917)
Storage

In your Editorial about
June 7 1917

You ask what has become
of Mr Edison storage
battery 7/8 complete

The answer is that for
more than 12 years

this battery has been

used in large quantity

Three thousand men

used exclusively in making

them & nearly every

Railroad in the U.S. have

for last 8 years used

them for lighting cars

many more and electric

trucks are drawn by them

& they are a standard
article in thousands
of Industries



[ATTACHMENT]

JUCES SHIPPING BUREAU
NEW YORK BOSTON
BARR PLACE 102 DEVONSHIRE ST.
ALL CONTAINERS SHAWMUT
DEANERLE FRANKFORD AND LONDON
TABLE ABOARD CLIPBOARD
PRACTICE FROM
FINANCIAL CHRONICLE NEW YORK
JULY 1910

THE TRANSATLANTIC FLIGHT—COURAGE AND SCIENCE.

Man's courage is equal to any call that may be made upon it. This has been proven in war; it is now being proven in peace. According into the belt of air that swatches the globe and in frail aerial barks, men have crossed the stormy Atlantic. The hour comes to the United States under the tutelage of its Navy, Commander Reed in the NC-4 reaching Plymouth safely. In the case of the American planes, they were built for overseas voyages, and their ocean route was marked by a line of war strips as spaced as to be available for rescue if needed. We steered by the smoke and searchlights of the ships and the flares sent up, said the Commander of NC-4, "which alone of the three machines starting from St. John made the first leg to the Azores without mishap." In the case of the English (Australian) aviator Hawker, mounting his small land plane, he really made his leap into the immensity of space with little to guide by save the stars and such nautical calculations as he might be able to make, trusting his life and success to the dependability of his machinery, the rapidity of his flight and his own endurance. All the world knows how, after flying 1,050 miles, his engine failing, he alighted safely in the sea, and was rescued. In each of these attempts courage of the highest order was necessary, and was possessed by all the men.

"Secretary Daniels, on his return, said 'the navy has been preparing for this for two years,' and expressed the opinion that little was left to chance. The country, despite the added cost of ships otherwise idle, may well congratulate the navy on its achievement; and the English Admiralty, though the Sopwith machine and effort were but a private enterprise, must feel some regret, even under the happy termination, that it made so few preparations, set up so few safeguards, in behalf of the intrepid men who staked their all in behalf of an arm of the 'service' so important to ships at sea whether in war or peace. And yet when all is said, a flaw in the machinery, an unexpected tempest of weather may mean disaster and nullify all hopes. However, we trust our lives every day to machinery in motion, and to

constructions, in which the strength of materials, though tested, measures life or death. It is a fair conclusion, not only from those recent efforts, but from the general rapid growth of aeronautics in the past five years, that the air is conquered. Imagination may well picture the upper air filled with fleets of ships carrying man and his products, by the most direct route and fastest speed, to every part of the earth.

Progress, and we presume it must always be so, moves forward by uneven stages, and rarely along parallel lines. Power on these transatlantic air-planes is dependent upon explosive engines fed by gasoline, though they carry wireless telegraph and telephone. What has become of Mr. Edison's electric storage battery "3/4 complete" according to his own words in the "American Review," so many years ago? Undoubtedly aeronautics is in its infancy, despite those prodigious feats that now so astonish and exhilarate us. We see man in his constructive moods. And while caution in experiment must deprecate unwarranted adventures based on almost incredible courage, the layman is encouraged in constancy and energy when he realizes that the one supreme object is to bring into more general usefulness a new achievement in transportation. So testing and so judging actual flight he still may harbor the hope that new wonders are in store.

It is now more than a quarter of a century since many, perhaps they were more scientific than practical, experimenters saw in the fish the model of a flying machine. And for centuries, we may say almost, the air was to be conquered by bird-men with marvelous wings. Finally the Wrights built their first gliding machines, one seeming principle of which is that motion overcomes gravity, and it may almost be said that to-day the aeroplane slides down the wind or skates on thin air, a sort of combination of the soaring eagle and lifting seagull. Somehow power is translated into motion, though the axis of resistance is the light medium of air, and the propeller with its marvelous revolutions draws or drives all that is attached to it.

Speed is perhaps now a sacrifice to safety, and starting and stopping hardly more than makeshifts. Men have long observed the motions of the dragonfly—darting hither and yon like a flash, stopping instantly, poised in air, or settling gracefully and easily to rest, its winged power under complete control, and serving it far beyond the powers of airships to serve man at this time. Perhaps the machine power of the airplane may be turned to good purposes, even as a more cogwheel transfers the direction of power and motion, and speed become a willing sacrifice to safety. At any rate, each new invention progresses more rapidly than the last by reason of the application of old laws to new uses.

The object developers of this science should obviously set themselves to it to make the new invention of service to man in a better and more abounding life. It is not "all of life" to crowd every experience into a few years. Life indeed may be extended by slowing it down and made more enjoyable by temperate uses of things, opportunities as well as possessions. Collectively it may be well to compress a century into a day but individually it is well to stretch a day into a century. One man can no more possess himself of all knowledge than he can personally enjoy the fruits of all wisdom. If there is a spiritual nature,

a serene contemplation is as important as a riotous physical progress. If this is true, a walk in the woods, careless of the passing of a day, may be more than a trip to London from crowded New York in twenty-four hours. To fly across lots at small cost in perfect safety to visit a neighbor may in the "simple life" outweigh all the stunts and aerial acrobatics which mankind covets and a feverish desire to live fast may accomplish. Men were brave enough when the stage coach or prairie schooner crossed the plains and in their six months' journey developed between themselves as much humanitarianism as now hangs like a desert mirage above the smoke and waste of a world war. If mere courage is to prove that it is not "all of death to die," it must look beyond—for self, and for others who linger on. It must save a world by decimating and impoverishing it to save it by open to question. And investment if it is to fill the world with peace and joy must become a practical helper rather than a spectacular and dangerous.

8/11
9/15
9/15

Mr. W. H. Meadowscroft.

As previously advised you, the Storage Battery Selling Division have these Cells on Consignment against us, amounting to \$435.60, which item we are desirous of clearing as soon as these Cells can be released. If Mr. Edison expects to keep these Cells in their present location indefinitely, it might be well to purchase same outright and charge the Government accordingly.

G. M. Ryder

LABORATORY OFFICE MANAGER.

Mr. Rydler:
Mr Edison wishes these
cells to remain on the Motor
Boat for the time being - He
will probably be making
some experiments with
them in the near future.
Wm. H. Leland

LAMAR LYNDON
CONSULTING ENGINEER
~~NEW YORK~~
NEW YORK

21 PARK ROW

Mr. Charles Edison.

Some time ago, Mr. Edison requested me to investigate certain phenomena in connection with the use of bismuth in the positive electrodes of the Edison battery.

I immediately put in a request for the necessary materials which were to be made at Silver Lake. After a considerable period of waiting I repeated my order, and then had the matter followed up.

I was finally advised that Silver Lake had no bismuth, could not obtain any, and that the chemists there were not prepared to make up the materials required even if the bismuth were available.

I understand the Mr. Pedersen can provide as much bismuth as will be needed, and in the desired form.

I suggest that you authorize him to prepare the bismuth at once, so that I can begin the experiments. I will leave the necessary instructions for the continuation and completion of the tests, after August, if I am unable to finish them during the present month.

Mr. Pedersen or Mr. Dobyne could carry on the work if necessary.

Lamar Lyndon.

Mr. Edison -

What do you want done?
Should Lyndon do it?
How about Chair?
July 4th 1919

Charles -

Not necessary about Bramm
I am going to do it
myself - S

BATTERY—
STORAGE

July 9, 1919.

Mr. Lamar Lyndon,
21 Park Row,
New York City.

Dear Mr. Lyndon:

I referred to Mr. Edison your note of the 4th instant in reference to bismuth, and he has returned it to me with the notation that he himself intends to make some experiments, presumably for the same purpose, and it will therefore not be necessary to arrange for the bismuth to conduct the experiments you have in mind, at least not for the present.

Faithfully yours,

7/28/19

Father -

Bother will be
at Blackston Chicago
tonight if you
want to wire
~~her~~ her -

Sent m. a. 7/29/19
8:30 PM WMA

Mrs. Jess A. Edson
Hotel Blackston Chicago

Everything right here
hope you had pleasant journey
and for you

Belding

are you going to
give me chart of
22B so I cannot
strengthen a cut
down drop of
Vantage - & how soon
can I expect it -

Don't do anything
but prepare chart &

If you have ~~enough~~
songs published by you
that are older than 20 years
I will pay 15 cents each
for a ~~set~~ set, no duplicates
wanted

572
New York City.

August 16, 1919.

502

Mr. Charles Edison,
Chairman of Board of Directors,
Edison Storage Battery Co.,
Orange, N.J.

Dear Mr. Edison,

Edison Accumulators Ltd. was incorporated and financed under and by reason of the original contract of September 20, 1913 and its amendment of August 22, 1916.

In May, 1919, 166,000 Pounds Stg. of additional capital was subscribed for at par by my associates Explosive Trades Ltd. (which has a paid up capital of 30,000,000 Pounds Stg.) on the same contract.

Even if I desired to do so, I could not cancel the existing contract and accept the new contract you propose without making myself liable to the shareholders of Edison Accumulators Ltd.

In the conference of August 15th, I explained to you the existing business conditions and the necessity for co-operative effort on the part of ourselves, i.e., Edison Accumulators Ltd. and Edison Storage Battery Co., to meet them.

I am submitting, at the forthcoming conference of August 16th, an amendment of the existing contract, with an earnest effort to meet some of the objections you have raised.

Your General Manager stated, at the conference of the 15th. inst., that you are not interested in any further business from Edison Accumulators Ltd. on the basis of the present contract. This is unfortunate because, in the event of an impasse, further relations between us are apt to prove unsatisfactory.

If such an impasse is found to exist, I can see no solution other than that the Edison Storage Battery Co. should purchase the Edison Accumulators Ltd., or, conversely, the Explosive Trades Ltd. and myself should purchase the Edison Storage Battery Co. I am prepared to negotiate on such one of these propositions as may appeal to you.

I think it best to address you in this matter by letter rather than incorporate it in the proposed conference.

Yours faithfully,

EDISON ACCUMULATORS LTD.,

Managing Director.

[ATTACHMENT]

*Amendment proposed by Monnot Aug 16/19,
& transmitted to ESBC by Monnot.*

The contract between Thomas Alva Edison, Edison Storage Battery Co., Edison Accumulators Ltd. and John Ferreol Monnot, dated Sept. 20, 1913 and the Amendment thereof dated August 22, 1916 are hereby amended as follows, as of the date of this letter.

- 1: Edison Accumulators Ltd. agree to forthwith appoint a resident sales agent in New York, authorized to sell Edison Storage Batteries to American Manufacturers and Importers for shipment to Edison Accumulators Ltd. territory, and the Edison Storage Battery Co. agrees to supply Edison Accumulators Ltd. complete batteries of formed cells to fill such orders, and such parts and accessories as may be required thereby, and to invoice same to Edison Accumulators Ltd. on the terms of the said contract and its amendment.
- 2: The Edison Accumulators Ltd. resident sales agent will be authorized to quote the Edison Storage Battery Co. list prices on all inquiries for export to Edison Accumulators Ltd. territory, with a discount which Edison Accumulators Ltd. will fix from time to time.
- 3: Edison Accumulators Ltd. agrees to relinquish from its exclusive territory Sweden and Norway, but will retain a non-exclusive right to sell Edison Storage Batteries in Norway and Sweden and in return Thos. A. Edison and Edison Storage Battery Co. agree not to grant exclusive rights in any other country where have already been granted. Furthermore, Edison Accumulators Ltd. will have the right to export from Great Britain to such non-exclusive licensed countries and to sell to British Manufacturers for export to said countries.
- 4: Thos A. Edison and the Edison Storage Battery Co. agree to grant to Edison Accumulators Ltd. the exclusive right to manufacture Edison Storage Battery parts as follows in Great Britain:
 - (a) All trays.
 - (b) Cell steel containers complete.
 - (c) All insulating parts.
 - (d) Accessories, such as poles, nuts, connectors, terminals, jumpers, electric filling outfits, electrolyte.
- 5: Edison Storage Battery Co. agrees to furnish to Edison Accumulators Ltd. detailed and assembly drawings of said detailed parts, together with all necessary information for the manufacture of such parts in Great Britain, and any special dies or tools necessary therefor, at cost, plus ten percent, of said dies and tools.
- 6: Edison Storage Battery Co. also agrees to instruct such representative as Edison Accumulators may appoint, in the proper manufacture of said detail parts, in the work of the Edison Storage Battery Co.
- 7: Until such reasonable time as Edison Accumulators Ltd. is ready to manufacture the said detail parts, Edison Storage

[ATTACHMENT]

2

Battery Co. will supply same, for assembly in Great Britain, at fair prices to be agreed upon .

8: When Edison Accumulators Ltd. is prepared and equipped to manufacture all the parts etc. referred to in Paragraph 4, the Edison Storage Battery Co. will supply Edison Accumulators Ltd. with unformed positive and negative plates of all standard types of Edison Cells, the prices to Edison Accumulators Ltd. to be agreed upon in conference of August 18th/19 and the future prices to be governed by proportionate increase or decrease in the corresponding types of cells' list prices.

9: In the event that conditions arise whereby it becomes necessary to manufacture the entire battery in Great Britain, Thos. A. Edison and Edison Storage Battery Co. agree to give Edison Accumulators Ltd. the first preference for such manufacture.

10: If the British Admiralty stipulates that such submarine batteries as they may wish to purchase be made in part or wholly in Great Britain, and if the Edison Storage Battery Co. desire to sell submarine type batteries to the Admiralty, the submarine type of battery will be included in the exclusive arrangement with Edison Accumulators Ltd.

Mr. Thomas A. Edison;

From - O. E. Sholes, V.P. & Gen. Mgr.,

To - All Members of the Board of Directors

Subject: Sales Guarantees.

August 28th, 1919.
Duck #1
2-6056

At the direction of the Board we enclose copy of proposed new form of Guaranty, as recommended by Sales Committee and approved by the Legal Department;

In the first blank space in second paragraph reading "delivering at least _____ % of their rated capacity, etc." we propose to insert as each case may be -

80% for Mine Locomotive Service;

80% for service more severe than normal such as Commercial Truck in a hilly city or Industrial Trucks and Tractors under severe grade conditions;

90% for all other services, or some other figure less than 100% determined by some special case.

In second blank space in second paragraph reading "---- their rated capacity of _____ ampere hours", we propose to insert rated capacity as given in all our literature of the particular type cell covered by this guaranty.

In third blank space in second paragraph reading "---- we will replace them with other cells having _____ % of rated capacity, etc.", we propose to insert 100% in all cases, but omit it from the printing in order to keep our competitors guessing.

Respectfully submitted,

O. E. Sholes,

Vice Pres. & Gen. Manager.

Enclosure -

Sholes - Please send me the old form showing what we did guarantee & the proposed new guarantee to see the change 703

[ENCLOSURE]

EDISON STORAGE BATTERY SERVICE GUARANTEE

Date

Name

Address

As an assurance to you that the quality of durability possessed by the Edison Storage Battery shall inure to your benefit, we, the undersigned EDISON STORAGE BATTERY COMPANY, hereby guarantee all the Type cells bearing serial numbers as per the list herewith as follows:

1. We guarantee that any defect in workmanship or material which may develop within a period of one year from the date of shipment of said cells by us will be corrected free of charge f.o.b. Orange, New Jersey.

2. We guarantee that, if at any time within a period of TEN YEARS from the date of said shipment, any of said cells shall, when tested under our supervision, be found incapable of delivering at least 95 per cent of their rated capacity of _____ per cent of rated capacity at a charge to you for each cell equal to the list price thereof at the date of replacement by us less an allowance, for the cell replaced and returned to us, equal to the percentage of its list price set opposite the period during which the benefit of this guaranty is claimed in the following schedule:

<u>Period During which Benefit of Guaranty is Claimed</u>	<u>Percentage of List Price Allowance</u>
First year	100 per cent
First 6 months of second year	75 " "
Second 6 " " "	65 " "
First 6 " " third " "	55 " "
Second 6 " " " "	50 " "
First 6 " " fourth " "	45 " "
Second 6 " " " "	40 " "
First 6 " " fifth " "	35 " "
Second 6 " " " "	30 " "
Sixth year	28 " "
Seventh year and last 6 months in 8th year	25 " "
Second 6 months in 8th year and 9th and 10th years	25 " "

We further guarantee that all cells furnished to replace other hereunder will likewise be covered by this guaranty, subject to all the conditions herein contained, their replacement allowance being based upon the date of their shipment by us to you in accordance with the foregoing schedule; provided however that this agreement and guaranty and our responsibility hereunder shall not extend beyond the expiration of ten years from the date of shipment by us of the original battery of cells covered hereby.

All cells to be replaced shall be delivered to us f.o.b. Orange, New Jersey. All cells supplied hereunder will be delivered by us f.o.b. Orange, New Jersey. All cells and parts thereof replaced by us hereunder shall become our property. We reserve the right to require payment of the

[ENCLOSURE]

aforsaid charge in cash before replacing any cells hereunder unless your credit with us is satisfactorily established at the time of such replacement.

New

If, at the time of any replacement hereunder, we are required to pay any Federal, State, County, Municipal or other tax on account of such replacement, we shall have the right to add the amount of such tax to the charge made you for such replacement.

This guaranty and agreement is subject to the following conditions and is not binding upon us unless these conditions be faithfully observed:

- A. That all said cells be installed in a manner approved by us.
- B. That all said cells be used only in connection with apparatus approved by us and maintained in reasonably good repair.
- C. That all said cells be cared for and operated in accordance with our standard printed instructions.
- D. That our authorized inspectors and Agents have access to said cells for test and inspection at all reasonable times.
- E. That all of said cells be used only for the purpose for which same are furnished to you, and used only within the limits of the United States, which for this purpose shall be considered not to include its insular possessions, Alaska, or the Panama Canal Zone.

This guaranty and agreement applies only to the above cells sold to you and is not assignable or transferable. Furthermore, this guaranty and agreement shall not be binding upon us with respect to any cell lost or destroyed, or with respect to any cell damaged or injured through or by misuse, abuse, fire, wreck, collision, accident or other cause foreign to the service for which it is intended.

This guaranty and agreement is subject to the conditions that we shall not be liable for any delay in replacing any cells hereunder due to any strike, fire, flood, war or any unavoidable cause, or due to inability to obtain or delay in obtaining material; nor for any other delay unless caused by our failure to use reasonable diligence in supplying cells for such replacements.

Orange, N.J.

EDISON STORAGE BATTERY COMPANY

Accepted

By _____
General Sales Manager

By _____

Date _____

The following is a list of the serial numbers covered by this guaranty:

[ENCLOSURE]

Edison Storage Battery Company

Battery Guaranty



GUARANTY NO. _____
 SALES ORDER NO. _____
 NUMBER OF CELLS _____ TYPE _____
 DATE OF ORIGINAL SHIPMENT _____
 19__

To _____



AS an assurance to you that the quality of durability possessed by the Edison Storage Battery shall inure to your benefit, we, the undersigned, EDISON STORAGE BATTERY COMPANY, hereby guarantee all the Type _____ cells bearing serial numbers as per the list hereinafter follows:

1. Any defect in workmanship or material which may develop within a period of one year from the date of shipment of said cells by us will be corrected free of charge. _____, N. Y. b. Orange, New Jersey.
2. If at any time within a period of _____ YEARS from the date of said shipment, any of said cells shall, when tested under our supervision, be found incapable of delivering at least _____ ampere-hours, we will replace them with others having full rated capacity at a charge to you for each cell equal to the list price thereof at the date of execution by us of this guaranty less an allowance for the cell replaced and returned to us, equal to the percentage of its list price set forth in the period during which the benefit of this guaranty is claimed in the following schedule:

Period during which benefit of guaranty is claimed	Percentage of list price allowance
First year.....	100 per cent.
First three months of second year.....	75 per cent.
Second three months of second year.....	73 per cent.
Third three months of second year.....	70 per cent.
Fourth three months of second year.....	67 per cent.
First three months of third year.....	64 per cent.
Second three months of third year.....	61 per cent.
Third three months of third year.....	58 per cent.
Fourth three months of third year.....	55 per cent.
First three months of fourth year.....	52 per cent.
Second three months of fourth year.....	49 per cent.
Third three months of fourth year.....	46 per cent.
Fourth three months of fourth year.....	43 per cent.
First six months of fifth year.....	40 per cent.
Second six months of fifth year.....	37 1/2 per cent.
First six months of sixth year.....	35 per cent.
Second six months of sixth year.....	32 1/2 per cent.
Seventh to tenth years inclusive.....	30 per cent.

[ENCLOSURE]

All cells furnished to replace others hereunder will likewise be covered by this guaranty, subject to all the conditions herein contained, their replacement allowance being based upon the date of their shipment by us to you in accordance with the foregoing schedule; provided however that this agreement and guaranty and our responsibility hereunder shall not extend beyond the expiration of ten years from the date of shipment by us of the original battery of cells covered hereby.

All cells to be replaced shall be delivered to us f. o. b. Orange, New Jersey. All cells supplied hereunder will be delivered by us f. o. b. Orange, New Jersey. All cells and parts thereof replaced by us hereunder shall become our property. We reserve the right to require payment of the aforesaid charge in cash before replacing any cells hereunder unless your credit with us is satisfactorily established at the time of such replacement.

This guaranty and agreement is subject to the following conditions and is not binding upon us unless these conditions be faithfully observed:

- A. That all said cells be installed in a manner approved by us.
- B. That all said cells be used only in connection with apparatus approved by us and maintained in reasonably good repair.
- C. That all said cells be cared for and operated in accordance with our standard printed instructions.
- D. That our authorized inspectors and agents have access to said cells for test and inspection at any reasonable time.
- E. That all of said cells be used only for the purpose for which same are furnished to you, and used only within the limits of the United States, which for this purpose shall be considered not to include its insular possessions, Alaska or the Panama Canal Zone.

This guaranty and agreement applies only to the above cells sold to you and is not assignable or transferable. Furthermore, this guaranty and agreement shall not be binding upon us with respect to any cell lost or destroyed, or with respect to any cell damaged or injured through or by misuse, abuse, fire, wreck, collision, accident or other cause foreign to the service for which it is intended.

This guaranty and agreement is subject to the condition that we shall not be liable for any delay in replacing any cells hereunder due to any strike, fire, flood, war or any unavoidable cause, or due to inability to obtain or delay in obtaining material; nor for any other delay unless caused by our failure to use reasonable diligence in supplying cells for such replacements.

Orange, New Jersey

EDISON STORAGE BATTERY COMPANY

Date:

By _____

Vice President

Accepted:

By _____

Date _____

[ENCLOSURE]

Data relating to vehicle in which the battery hereby guaranteed is to be exclusively used:

Name of Manufacturer _____

Type of Vehicle _____

Manufacturer's Vehicle No. _____

LIST OF BATTERY CELL NUMBERS

[ENCLOSURE]

Edison
Storage Battery
Guaranty

106
115

THOMAS A. EDISON LABORATORY.

September 15, 1919.

Mr. W. H. Maudowcroft.

On July 2nd, you advised me that the 15 A-S Cells which were delivered in October, 1918, to the Brooklyn Navy Yard for the use of Mr. Thomas A. Edison on Motor Sailor Boat No. 1206 were still on the boat. If these Cells are still in use, will you please so advise me.

A memorandum from you in this connection will be appreciated.

G. M. Rydger

LABORATORY OFFICE MANAGER.

Mr. Rydger:
These cells will be removed
from the boat within a few days
and returned to the Battery Co.
W. H. Maudowcroft

GMR:AJU.

9/16/19
108. Edison boat
per W. H. Maudowcroft

EDISON STORAGE BATTERY COMPANY

Memorandum

Sept. 20, 1919.

Meadcraft

*Write note of
thanks & say I am*

TO- Mr. Thomas A. Edison, president.

FROM- Mr. C.E. Sholes, V.P. & G.M.

*proud of the
check & hope the boys
will get many of these*

The employees of this Company have asked

that Check No. 1 of our first Thrift Dividend shall be
sent to you, and we enclose accordingly.

Edison

At the same time, may we express our thanks
for the generous approval you gave to the experiment with
this plan, and our confident hope to justify it.

Faithfully,

C. E. Sholes

C. E. Sholes
Vice Pres't & Gen'l Mgr

7865

*Mr. Kellow
Mr. Edison has written a
letter of acknowledgment
of my letter of 7/25/1919*

[ENCLOSURE]

CONFIDENTIAL

EDISON STORAGE BATTERY COMPANY
Office of the General Manager.

SB-189-22C-19

THRIFT DIVIDEND NOTICE

The Board of Directors has kindly consented that commencing with September 1st, and for a period of 6 months thereafter, we may try out a plan by which all employees of the Edison Storage Battery Company, Edison Storage Battery Supply Company, Edison Chemical Works, and Edison Storage Battery Garage Co., can earn some extra payment each month. The plan is conceived in fairness and friendship to see if the principle can endure, and is as follows:

WHEREAS it has always been necessary, and is now necessary to put all money received for sales back into the business, and

WHEREAS it is believed that under the new organization the Sales will be materially increased and enable a larger production which means lesser costs, and

WHEREAS it is believed that the Manufacturing Division and Chemical Works and all other Departments can also accomplish material savings and betterments under new organization and a Dividend Plan, and

IT HAS BEEN AGREED that commencing with September 1, 1919, and continuing until February 28th, 1920, but without implying, inferring or incurring any obligation beyond such period.

1. That a fair estimate of the probable cost (including all reasonable charges, but without any profit) of cells manufactured from September 1st, 1919 to February 28th, 1920, and calculated into A-4 equivalents, is \$11. per cell, and
2. If and whenever during the period specified, the cost of A-4 equivalents is reduced from \$11., then one-half of the sum of the reduction shall be divided equally among all employees excepting
3. From the whole sum of any cost reduction attained, there shall first be deducted the cost and losses of any defective products thrown out by Inspectors, or rejected and returned by the Test Department or District Managers or customers, as well as the cost and loss of any unnecessary waste, etc., etc., which has not previously or otherwise been calculated into costs, and
4. On or before the 8th day of September, and during each succeeding month of the whole period specified herein, the Managers Committee shall furnish the Board of Directors with an estimate and reasonable justification therefor of the savings (if any) which have and or will probably be accomplished during the previous and succeeding month, and which estimate as approved or changed by the Board of Directors and corrected by deductions as mentioned in preceding paragraph shall become the basis of division and payment (if any) but
5. On or before the 15th of each month or at any earlier date when the Accounting Committee shall report the actual cost of Edison A-4 equivalents for any previous month of the whole period specified herein, then a correction of the estimate as planned in paragraph 4 hereof shall be made as provided in paragraph 3 hereof, and the correction shall be added to or deducted from the next succeeding payment.
6. It shall be understood that any employee who is discharged or shall leave the employ of the company for any reason whatsoever shall lose all right to share in any dividend subsequently paid, and
7. It shall be particularly understood and agreed that all obligation of the Company shall end with the payment of dividends (if any) earned and calculated to February 28th, 1920, and that the Board of Directors may thereafter discontinue interest or change or renew the agreement as they may then prefer and decide.

What we think or say about this plan does not matter. It is how we stand the test and what we do with the opportunity, that is vital. Everyone must do his or her share to prove that this partnership is profitable in money and happiness. It means diligence, fairness, faithfulness, fellowship and frugality on the part of every one of us. It means that carelessness, idleness and wastefulness will reduce the Dividend for everyone.

If you are strong and skilled, then do your part, and some for the fellow who is not so fortunate and who envies you. If you are not strong or skilled maybe you can help with suggestions.

Do your part. I will do mine.

C. E. SHOLES, ✓
General Manager.

September 2nd, 1919.

[ENCLOSURE]

THRIFT DIVIDEND NO.1.

To prevent misunderstanding you are again reminded that these payments are based on estimated savings, and that we cannot know the actual savings of any month until the 15th of the next month.

Also, this plan is an experiment and it is up to us to show the Directors that this kind of partnership pays.

Let's try to make the actual savings more than the estimated savings and thus earn increased dividends.

Every one must do his or her share with diligence, fairness, faithfulness and frugality.

Anyone and every one who is tardy, careless, idle, or wasteful is reducing the dividend for all others and is therefore unfair.

Do your part. I will do mine.

C. E. SHOLES,

General Manager.

Sept. 15th, 1919

60215

September 25-1919

From Walter Stevens, Manager, Export Division,
To Arthur Mudd, Secretary, Edison Storage Battery Company.

Subject: Edison Accumulators Limited's Agreement.

Under date of August 22d, 1919, Mr. Sholes handed to Mr. Monnot, formal Notices (2) of the termination and cancellation of our Agreements with Edison Accumulators Limited, said termination and cancellation to take effect 90 days from August 22d, 1919.

On August 28th I handed to Mr. Maurice E. Fox who was about to return to London, two further sets of Notices, with instructions to present same to the Secretary of Edison Accumulators Limited in the presence of a witness, sending me a letter properly signed by himself and witness to the effect that said Notices had been delivered to the Secretary of Edison Accumulators Limited.

I hand you herewith, original of Mr. Fox's letter, witnessed by H. R. Hughes, in which he advises that on September 10th, 1919, he presented to the Secretary of the above company at their registered offices, 2/3 Duke Street, London S. W. 1, these Notices.

Will you please attach Mr. Fox's original letter to copy of original Agreement which you are holding at your office.

In order that our files may be complete, kindly send me an acknowledgment of the receipt of Mr. Fox's letter.

WALTER STEVENS.

ES.

C. C. to
Charles Edison,
C. E. Sholes,
Delos Holden,
H. Lannan.

[ENCLOSURE]

COPY

164 Wardour Street,

London W. 1.

September 10-1919.

Walter Stevens, Esq.,
Vice President & Manager Export Division,
Edison Storage Battery Company,
10 Fifth Avenue,
New York City, U. S. A.

Dear Sir:--

We, the undersigned, beg to inform you that we have this day presented to the Secretary of Messrs. Edison Accumulators Limited, at the registered offices of the said firm, 2-3 Duke Street, London, S. W., your two notifications dated August 22d, 1919, wherein the said firm is informed that the exclusive and non-exclusive rights granted by Agreement dated September 20th, 1918, are to be cancelled at the expiration of ninety (90) days from the date of said notifications.

Yours faithfully,

(Signed) Maurice E. Fox.

(Signed) H. R. Hughes.

Registered.

Planned
Mr. Miller's
Secretary 245 Ave. N. 4th St.,
Minneapolis, Minn.
John Willigood message
to Mr. Miller
out of town. Hall

J. V. Miller

take

Please ~~send~~ 3 lbs of

Nickel hydroxide just
as you send it to factory
but screened them 50 mesh
& put it in one of your
Iron & Oats & Reduce
by Hydrogen
& send it up to

Lub

Walker -
San Francisco
Conn

D
1919 Battery, Storage
September 26-1919

FROM EDISON STORAGE BATTERY COMPANY

EXPORT DIVISION

Mr. Charles Edison:-

After considerable correspondence we have entered into an exclusive sales arrangement with the Mine Safety Appliances Company, Pittsburgh, Pa., whereby we have granted them the exclusive sale of our Mine Lamps in China, Japan and Canada for a period of one year from October 1st, 1919.

We have agreed to allow them the same discounts as they enjoy from the Parent Company, and to forward all orders and inquiries received from that territory, to them, during the period of the Agreement.

I have advised Messrs. Sholes and Kelly in reference thereto.

WS.
C. C. to
C. S. A. Williams
Chas. Foyer.

WALTER STEVENS.

B541

October 1, 1919

Walker Vehicle Co.
Chicago, Illinois.

Gentlemen:

For your reference we confirm contingent agreement as follows:

1. The Walker Company will recommend Edison batteries for use in any and all vehicles manufactured and assembled by the Walker Company, and will further agree to give preferred publicity to the Edison battery in its catalogs and sales books.
2. In consideration of as mentioned next above, and that the Walker Company agrees to purchase not less than 5000 A4 equivalents from October 1st, 1919 to February 28th, 1920, the Edison Company shall extend and pay to the Walker Company a special allowance of 5% for advertising, and which sum shall be taken from the Advertising appropriation of the Edison Company, but this allowance of 5% shall not apply against any batteries purchased prior to date hereof by the Walker Company, or against any list of prices lower than the now existing price list of the Edison Company.
3. It is mutually agreed that the special allowance of 5%, as mentioned in paragraph next above, shall be calculated on the sum of net invoices (after all other discounts excepting cash discount are deducted therefrom) and shall be paid or credited, as the Walker Company may prefer, on or before the fifteenth of each month for all invoices of the previous calendar month.

Also it is mutually agreed that this agreement shall be kept in confidence between us.

Respectfully yours,

C. E. Sholes.
Vice President & Gen'l Mgr.



COPY

My S.B. Mamber

6281 01 928

EDISON STORAGE BATTERY COMPANY

Memorandum

October 8, 1919

TO: Mr. Thomas A. Edison, Pres't,
FROM: Mr. C.E. Sholes, Vice Pres't & Gen'l Manager
SUBJECT: Experimental Work.

Dear Mr. Edison -

Can you kindly help us with your advice in premises as follows:

(1). This Company is indebted for an important sum and although we have high hopes to overcome this burden of indebtedness, it seems unreasonable to expect much progress until we have first learned to live within our means, and

(2). In order to prevent any unwise or unnecessary expenditure, the Managers of the various divisions have agreed that no experimental work shall be undertaken except as authorized by the Managers' Committee and by a shop order approved by the General Manager.

(3). One of our most beloved associates has unknowingly broken this rule and because of the circumstances we are at loss to know what to do about it.

(4). At the present time, we are operating 18 cranes for nine hours per day and handling about 67,500 gallons of wash water and solution. When this solution precipitated, we obtain a total of about 20,000 pounds of nickel-copper carbonate per day. We are not at present losing any appreciable quantity of solution, and of the total carbonate produced we are refining and obtaining as nickel solution or copper compounds the equivalent of 15,000 pounds of carbonate, leaving an unused daily balance of 5,000 pounds of nickel-copper carbonate, which is being stored for future recovery.

(5). We have contracted for and have at present 80% completed, and will have in operation in ten days, equipment sufficient to handle all wash water and solution, complete precipitation and production of carbonate, and recovery of nickel and copper from carbonate.

(6). Any additional equipment for recovering or refining this carbonate seems unnecessary and uneconomical and since the greatest part of the work is the recovery of the carbonate from the solution, it also seems logical to centralize the work at Orange. Any excess of Mixed Sulphate solution which may be produced could be shipped to Silver Lake in drums for direct use, or, we can if necessary, evaporate (we have the pans) and send the Sulphate in the form of crystals.

(7). The beloved Associate who has violated our rule is Mr. Thomas A. Edison and the question at issue is therefore whether we shall censure the President or fire the General Manager.

(8). As a compromise, and inasmuch as it is not fair to criticize without offering a remedy, we presume to suggest that Mr. Roberts visit us and look over our plant and give us the benefit of your plans in connection with the equipment now installed and planned.

(9). Asking the favor of your kind reply, I am,
Faithfully yours,

C. E. Sholes

copy
Charles V. U. attend to this
but I would like to see my
agreement I have signed in
this connection
October 21st, 1919

Edison

PERSONAL

Mr. C. E. Sholes, V.P. & G.M.
Edison Storage Battery Company
Orange, New Jersey

SUBJECT: Tidewater Equipment Company - Starter.

Dear Mr. Sholes:

The last time I talked to you about the above subject you stated that you were determined not to finish the model at the Edison Laboratories nor to proceed with putting it on the car and trying it out, and I desire to give you a little history in connection with this whole transaction and have your final decision on the above question.

When this proposition was brought before Mr. Thomas A. Edison he investigated it very thoroughly and placed his O.K. on the starter and on the fact that it could be made to work in fine shape with an Edison battery, bought fifteen shares of the stock for \$1000.00 cash and the Edison Storage Battery Company made an agreement to make the model and demonstrate this model for a sum of not to exceed \$5,000.00, this to be done at Orange at the Laboratories.

Owing to this O.K. of Mr. Edison and the agreement and the further fact that it was held by all concerned that if a starter could be put on the market with an Edison battery, it would be a wonderful success, and at a meeting of the sales organization, at which the Vice-President of the Edison Storage Battery Company presided, the proposition was placed before employees of the Battery Company that they should join in buying some of this stock.

Included in that number was Mr. Wm. G. Bee, deceased, formerly Vice-President of the Edison Storage Battery Company, who also had great confidence in the starter, owing to Mr. Edison's O.K., and his widow, carrying out his wishes, placed \$600.00 in cash in the stock of this company. Other employees took stock, among them myself, taking \$900.00 worth of the stock.

A large number of citizens of Boston and some of Portland, Me. put in between twenty and thirty thousand dollars in cash into

Mr. C. E. Sholes.

10/21/19.

the stock of this company, entirely on the strength of Mr. Edison's O.K. and agreement; and Mr. Robert W. Sanford, 58 State Street, Boston, one of the directors of the Tidewater Equipment Company, states that he and the rest of the New England stockholders are very much grieved and hurt at the failure of the Edison Storage Battery Company to carry out what they had agreed to do.

Under the original agreement, two models were made and, of course, as is the case in all such inventions, the second one worked much better than the first one and was almost perfect, running as it did in a Ford car belonging to the Edison Company for nearly four months.

It was then suggested that the engineer who had designed the models under the patents could make great improvements, eliminating many parts and make possible economical manufacture, and this question was taken up very carefully by Mr. Thompson and myself with Mr. Chas. Edison, who authorized an arrangement to be made with Mr. Hanson of Portland, Me., the said engineer, to proceed with drafts, etc., and to supervise the finally putting together of the product of the said drafts at a sum not to exceed cost and \$700.00.

On the strength of this agreement on the part of Mr. Chas. Edison I went to Portland, Me., called a meeting of the Board of Directors and in order to protect the company, the Board elected me as one of their number; and further, on the strength of Mr. Chas. Edison's word that the model should be completed and tried out thoroughly, I individually and alone put my hand in my pocket and paid up all of the outstanding debts of the Tidewater Equipment Company, amounting to several hundreds of dollars, taking stock therefor.

I wanted you to know all the above facts and have been asked by the directors and stockholders of the Tidewater Equipment Company to know if your repudiation of Mr. Chas. Edison's agreement is to be final, and I would consider it a great personal favor if you would carefully go over the matter and give me the decision of yourself and associates.

I am sending a carbon copy of this letter to Mr. Thomas A. Edison and to Mr. Chas. Edison, in order that they may know fully the feeling of the numerous stockholders in this matter. If for the sake of a few hundred dollars you are going to throw aside all agreements and possibilities of this being a wonderful chance to make a very large market for Edison storage batteries, the Tidewater Equipment Company would like to know it, in order that they may know how to proceed.

With assurances of my personal regards, I remain,

Very truly yours,

Edw. Drake Smith

Oct. 23rd, 1919.

Mr. Thomas A. Edison.,
West Orange, N. J.

Dear Mr. Edison:

You are cordially invited to attend a farewell dinner
to be tendered to Mr. Warner O. Olson by his co-workers.

Dinner will be served promptly at 8 o'clock Thursday
evening, October 30th, at Achel-Stetter's, Newark, N. J.

ARRANGEMENT COMMITTEE,

W. F. Staudt.
Chairman.

*Mr. Edison
Olson is in the
Engineering Dept. - He is
the Swede whom you will
probably remember.
Measurements*

*He told me he was
leaving to go into
big machinery*

*Mr. Olson
is leaving
to go into
big machinery
business
He told me he was
leaving to go into
big machinery
business*

The Edison Storage Battery Supply Co.

THOMAS A. EDISON PRESIDENT
 S. D. HANREY SECRETARY
 H. F. MILLER TREASURER
 ARTHUR MUDD SECRETARY

THOMAS A. EDISON

ORANGE, N.J.U.S.A.

CHARLES EDISON
 EMPLOYEE OF THE BOARD

CABLE ADDRESS
 "EDISON" NEW YORK

IN REPLYING
 ADDRESS THE COMPANY
 AND REFER TO

Nov. 3, 1919..

ANNUAL MEETING

Notice is hereby given that the annual meeting of the stockholders of The Edison Storage Battery Supply Company will be held at the principal office of the Company, corner Valley Road and Lakeside Avenue, West Orange, N. J., on Wednesday, Nov. 12, 1919, at ten o'clock a. m. for the following purposes.

- (1) to elect five directors; (2) to take appropriate action upon annual reports to be submitted by the Treasurer and other officers of the Corporation; and (3) to transact all such other business as may regularly come before the meeting.

If you do not expect to be present, will you kindly send me a suitable proxy, designating an agent to represent you at the meeting. A form considered suitable for this purpose is enclosed, which, if satisfactory to you, should be dated, signed and witnessed.

Yours very truly,

Arthur Mudd

Secretary.

*Madocraft-
 I will sign proxy
 down at Lab
 have no
 pen at home
 S*

TO: Thomas A. Edison Laboratory,
Mr. Meadowcroft.

MEMORANDUM NOV 14 1919

DATE Nov. 13th 1919.

SUBJECT: Orders for Mr. Edison.

Dear Mr. Meadowcroft,

There has been some confusion as to the authority of ordering material from us on the strength of "Mr. Edison wants same immediately". At the meeting of the Manufacturing Committee today the matter was brought up and I made the following decision.

That any orders bonafide from Mr. Edison for material should be put through without any formal order or requisition and sent to Mr. Edison at the earliest possible time in which we can get out the material, not sacrificing quality, however.

That no orders should be accepted by telephone or otherwise to do work on the supposition that it is for Mr. Edison, unless the said order comes through you.

Will you therefore, hereafter, forward to us any orders for material for Mr. Edison or accept and approve of any orders or requisitions telephoned or sent to us by other parties, said to be ordering for Mr. Edison.

Unless we hear from you to the contrary, this will be the ruling we shall make.

J. B. Miller,
Division Manager.

OK

*Mr. Edison
This is a very good rule, and if anyone comes to me and wants me to order anything for you, I shall require them to show me your name or initials.*

COPIES TO: Mr. Hunter and Mr. Burrows.

H. G. THOMPSON
PRESIDENT

F. V. MCGINNISSE
VICE-PRESIDENT

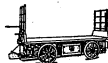
HAROLD H. SMITH
SECRETARY

Transportation Engineering Corporation

MAIN OFFICE: 200 FIFTH AVENUE, NEW YORK
DISTRICT OFFICE: 1305 MANHATTAN BUILDING, CHICAGO



RAILWAY DISTRIBUTORS
FOR
EDISON STORAGE BATTERY COMPANY
STORAGE BATTERIES FOR
TRAIN LIGHTING
RAILWAY SIGNALING AND
OTHER RAILWAY PURPOSES



RAILWAY DISTRIBUTORS
FOR
THE AUTOMATIC TRANSPORTATION COMPANY
INDUSTRIAL TRUCKS
TRACTORS AND
ENGINES

New York, Nov. 25, 1919.

Mr. Charles Edison,
Orange, N. J.

Dear Charles:-

The following information has come to our attention and I request that you review this letter for to my mind it is bound to re-act in a manner detrimental to the interests of the Edison Storage Battery Co., and at the same time is an action which places us in a most embarrassing position and we cannot help but believe that it is aimed to make it more or less impossible for us to handle the Edison Battery for you with any profit whatsoever to ourselves.

The action on your part of offering these discounts to the railroads in the light of their being preferred customers, we cannot help but feel is detrimental, as for instance, certain large users of Edison batteries in commercial street truck use or in industrial truck use or even in mine locomotive service, are as fully entitled to the same discounts from your list, as are the railroads.

If these discounts be universal to large users irrespective of the service to which they might be applied, there may not be the same criticism but to single out the railroads, many of whom even though under contract, are but purchasers in very small quantity, is in my opinion bad business.

If the maximum discount of 20% as contemplated, is given the railroads upon their signing up for the exclusive use of Edison batteries for all of its application for its service, this will immediately incur the displeasure of the industrial truck manufacturers, who are selling to railroads and re-act against you in a very serious manner. The industrial truck manufacturers will become incensed at your offering this maximum discount to the user when their's is only 5% above this and when it cost them 10% to handle the business with their customers who are anywhere from 60 to 90 days in paying for the goods, whereas on the other hand you receive your payments from some of the manufacturers in 30 days and some of them even discount their bills.

Furthermore, this action on your part in announcing these greater discounts to railroads will immediately become known to your competitors, the lead battery manufacturers, and will be a much easier matter for them to figure against you in price than it has been ever heretofore.

This leaves nothing to your salesman to hold up his sleeve in order

to close at the last moment and a circular letter of this nature will not aid you with some of the larger railroads when they learn that any and all railroads, regardless of quantity purchased, can obtain this maximum discount under contract.

Also under our arrangement with you, we do not enjoy any commission where you have made contracts and should you be successful after the roads are returned to private ownership of getting more roads than you now have, tied up with contracts on this basis, it would eliminate us altogether.

We understand that this announcement has been sent to all of the Edison Storage Battery salesmen and yet we have not received a copy and would therefore blindly go ahead and quote what we understood as the Edison Company's policy in the way of prices only to be made a laughing stock of at the very outset.

In the spirit of fair play and honesty will you not have this matter reviewed and give us the opportunity of presenting what we consider to be the fundamental facts in the case before this is allowed to become operative.

Barion the seeming conceit, but for ten years practically, I with the assistance of Mr. McGinness, have been endeavoring to get the railroad business of the country and have been successful as you well know, in tying up the largest users either with contracts or without it, and it is safe to say that a great many roads to whom this proposition will be presented who would not under any circumstances tie up in an exclusive contract, will however demand the maximum discount in view of the fact that they are as large purchasers of storage batteries as are those roads or will be those roads who are now under contract or who might enter into contract.

Also immediately that this announcement is made known to certain Aile Generator manufacture who have not a battery of their own and whom we have now gotten to the point where they are working with us and for you in the attempt to have Edison batteries used wherever possible, with their equipment it will simply antagonize them and if I am not greatly mistaken, they will turn from Edison to lead because there will be nothing in it for them whatsoever in attempting to secure Edison battery business when the railroads with whom they are dealing can purchase them as cheaply as they can and under these circumstances they will take the easier course and permit the road either to buy whatever they please or as I have stated before, take the initiative and attempt to sell their equipment with lead batteries.

The lead people in their wildest dreams would protect the manufacturer and the railroad business of the country has always been conducted in all lines on the basis of the manner in which I directed it while with your organization.

Please believe me that this matter is far reaching and will only injure you in the long run, and if you will pardon me, this decision can only have been arrived at due to ignorance of the manner in which the railway

supply business is conducted and when you come to realize it, the railroads collectively are the ~~best~~ ^{biggest} purchasing power in the United States as a class.

To sum this matter up, it has never been necessary to give these discounts in the past to obtain the railroad business.

Yours very truly,

N. J. Thompson
President.

H

[ENCLOSURE]

TO ALL PURCHASING AGENTS

Subject: New discounts.

Please be advised that on new orders received from and after December 1st, 1919, but subject to change without notice, we will extend the following uniform discounts to railroads.

First: On orders for Edison Storage Batteries for any purpose whatsoever, 10% from list price prevailing on date of acceptance for orders.

Second: On optional contract or agreement including schedules for specifications covering Edison Storage Batteries, 15% from list prices prevailing on date of acceptance of orders.

Third: On contracts engaging the exclusive purchase of Edison Storage Batteries for all battery applications, 20% from list price prevailing on date of acceptance of orders.

The favor of your acknowledgment with statement of your interest in any of these propositions will be very much appreciated.

Yours very truly,

John Kelly,
Gen. Sales Mgr.

By E.M. Cutting,
Mgr. Railroad Dept.

[ENCLOSURE]

COPY

cel

2 copy - 7

May 28, 1919

Sales arrangement with Mr. H. G. Thompson
concerning Sales of Batteries to Railroads
for Lighting, Switch, Signal, and certain
miscellaneous services.

Mr. H. G. Thompson,

Orange, New Jersey.

My dear Mr. Thompson:-

Referring to our conversation concerning above and
for record, we confirm that in view of your experience and ser-
vice with this Company, we are willing that you should organize
a Corporation, of which you control a majority of the stock and
are the active manager, and undertake to sell our Batteries to
Railroads in the United States, under terms, conditions and ex-
ceptions as follows, viz:

The arrangement shall be informal and based
on mutual confidence, in the same manner as our arrange-
ment with the Mine Safety Appliance Company, which may
be terminated at any time, but which has been very satis-
factory, and with which you are entirely familiar.

At least until you have shown it to be of advant-
age to us to relinquish the right, we do not give up our
right to sell direct and quote such discounts as may be
deemed necessary. We will, however, undertake to keep
you informed as to quotations made, you in turn to keep
us informed. Furthermore, we intend to extend all reason-
able helps towards enabling you to satisfactorily attend to
this business for us.

All sales of Batteries shall be made in our name
and for our account and subject to acceptance and confirma-
tion by us, and you will not directly or indirectly sell or
offer for sale any other Storage batteries.

Discounts shall be subject to change on sixty
days written notice to you, but for the present and until
further advised we will allow you as a basis for the calcu-
lation of your commissions:

[ENCLOSURE]

-2-

On A & B type cells	-	25% from List Prices
On other " " "	-	20% " " "
On Solution & Fillers	-	10% " " "
On Miscellaneous Parts	-	Discounts corresponding to cell types

Settlements may be made after the end of each month by remitting to you the sum of differences between discounts to you and those extended to your customers, in all cases in which the discount to your customer is less than the discount to you.

All Sales and Convention expenses shall be borne by you and we shall not be expected to assume any part thereof, but we shall, of course, assist you with our usual advertising, literature and inspection service.

The term "Railroads" as used herein includes Electric Street, Subway, and Interurban Railroads in the United States. The business of such placed through agencies (like Robinson, Cary & Sands) and the business placed through Equipment Manufacturers (like Safety Car Heating & Lighting Co.) and through Car Builders (such as the Pullman Co. and American Car & Foundry Co.) is in this arrangement considered included. But, at least for the present, this arrangement does not include business of Steamship Lines owned or operated by Railroads, or business of Railroads operating wholly without the United States, or Export business, or Mine Locomotive business, or Industrial Truck business, or business of the Railway Storage Battery Car Co., or other business of such general nature with Railroads, or batteries for the propulsion of storage battery propelled passenger cars. The term "United States" as used herein shall not include Alaska, the Canal Zone, or any insular dependencies or possessions.

Also, and to prevent unnecessary misunderstanding, we remind you that the Company has already paid the expense of getting existing contracts and cannot fairly assume any additional costs for orders thereon. But we will supply you with a list of expirations so that you can prepare to renew these contracts.

It is understood that you will avoid undesirable competition with Edison Primary Battery in any of its established or prospective business.

It is understood and agreed that you, with your staff of assistants, either personally or through the corporation to be organized by you and to be under your direct active management, will diligently promote the sale of our batteries to railroads in the United States continuously so long as this arrangement remains in existence, and that your

[ENCLOSURE]

-3-

function shall be solely the solicitations of orders and such service as may be incidental thereto, and that neither you nor your corporation shall have any authority to make any contracts or incur any obligations in our name or on our behalf or binding upon us.

It is furthermore understood and agreed that we shall not be liable to you or your corporation for any commissions except on batteries actually sold under this arrangement and delivered and paid for, and that you shall not be entitled to any commissions on repair jobs or on replacements under guaranties.

It is further understood and agreed that the acceptance of any order procured by you is entirely a matter within our discretion, and that we shall not be liable to you or your corporation for commissions or otherwise because of any delay in delivery of batteries under any order, or for failure to deliver the same, or on account of the cancellation of any such order, or on account of any delay in making collections, or failure to make collections.

It is expressly understood and agreed that we shall have the right to terminate this arrangement at any time with or without cause on sixty days notice. Such notice may be given by the mailing of a registered letter, postage prepaid, addressed either to you or any officer of your corporation at your or its last known address.

It is further understood and agreed that in case of the termination of this arrangement in any manner, our obligation to pay you commissions shall not extend to any batteries supplied on orders received by us subsequent to the date of such termination, and in the case of orders received prior to the date of such termination, such obligation shall not extend to any batteries except such as shall have been ordered specifically for delivery prior to the expiration of four months after the date of such termination.

In conclusion we can only suggest that, as this arrangement is based on mutual confidence and good faith, we believe that you will agree that any matters which may develop and or which are not provided for herein may be safely left for future consideration, fair dealing and settlement.

Hoping that we have expressed as desired and with confidence that you will lend every possible assistance to a long and satisfactory continuance of this arrangement and to the success of every Edison interest, and with kindest regards and best wishes for your future, I am

Faithfully,

Accepted:
H. G. Thompson

Charles Edison
Chairman of the Board

[ATTACHMENT]

Day to Thompson.

200 Fifth Avenue.

Mr. Chas. Edison
Mr. Thompson
was here and I
gave him this message
McDonough

that I have not followed the New York, November 29th, 1919.

by at all for a long time & have had to leave it
entirely to Charles Edison. I think he will

Dear Mr. Edison:-

act fairly all around — S

Six months have now elapsed since the formation of my corporation to act, in accordance with your wishes, as the railway distributor for the Storage Battery Company. It will interest you to hear that, in spite of the restrictions placed upon railroads by the Railroad Administration, we have secured orders for some 22,000 A-4 equivalents or a little over \$500,000. worth of batteries.

In my conversations with you and Charles when the arrangement for me to sell batteries was being made, it was your idea that my company should act as the Railway Department of the Battery Company.

Mr. Sholes, as I understand it, objected to this being granted at once, and as a compromise, our rather informal agreement was made to read:

"At least until you have shown it to be of advantage to us to relinquish the right, we do not give up our right to sell direct and quote such discounts as may be deemed necessary".

This expressed the idea that later we would be made your exclusive Railroad Department. To further this and the agreement further stated:

"...we intend to extend all reasonable help toward enabling you to satisfactorily attend to this business for us".

I am indeed sorry to have to say to you that the present

Done for
Hesterhead
superintendent

working arrangements are not as pleasant as we think they could be made, and should be for the best interests of yourself and us.

Your salesmen are acting in competition with us which brings about an unsatisfactory feeling in the minds of railroad officials, which can only result in confusion making it difficult for either of us to secure as much business as we think should be possible.

We have tried for months to find a way of working with your Sales Department, but apparently we have been unsuccessful, for the climax of their hostile acts is the preparation of a letter to be sent to the Purchasing Agents of all Railroads offering discounts as follows:

10 percent on all orders for batteries for any purpose

15 percent under an optimal agreement to purchase Edison batteries

20 percent under an exclusive agreement to buy Edison.

I have written Charles asking him to prevent the sending of this letter not alone because it would nullify your agreement with me but because in a number of ways it would re-act and injure you directly. A copy of my letter to Charles is enclosed for your information.

When you were shown the agreement made with me last May, your comment was that it was not fair to me. So it has worked out, though at the time I was willing to accept it because I knew I could count upon your good faith.

As the working out of the arrangement, however, is left to others, I am going to ask if you will not consider putting it in more definite form. With the personnel of your sales force being gradually changed in character by the replacement of the older men who leave, by young men with generally little or no battery experience, I feel that we are more than ever in a position to hold your railroad business for you.

I will call Monday morning to discuss this matter with you. If you would care to have me call on you before then, say at your home on Sunday, please send me word by telephone and I will come at once. My phone number

(3)

is Glen Ridge 170.

I hope you will agree with me that this is a really serious matter
to both of us.

Sincerely yours,

H.P. Thompson

HPT H

Mr. Thos. A. Edison,
Orange, N.J.

[ENCLOSURE]

New York, Nov. 25, 1919.

Mr. Charles Edison,
Orange, NJ

Dear Charles:-

The following information has come to our attention and I request that you review this letter for to my mind it is bound to re-act in a manner detrimental to the interests of the Edison Storage Battery Co., and at the same time is an action which places us in a most embarrassing position and we cannot help but believe that it is aimed to make it more or less impossible for us to handle the Edison Battery for you with any profit whatsoever to ourselves.

The action on your part of offering these discounts to the railroads in the light of their being preferred customers, we cannot help but feel is detrimental, as for instance, certain large users of Edison batteries in commercial streettruck use or in industrial truck use or even in mine locomotive service, are as fully entitled to the same discounts from your lists, as are the railroads.

If these discounts be universal to large users irrespective of the service to which they might be applied, there may not be the same criticisms but to single out the railroads, many of whom even though under contract, are but purchasers in very small quantity, is in my opinion bad business.

If the maximum discount of 20% as contemplated is given the railroads upon their signing up for the exclusive use of Edison batteries, for all of its application for its service this will immediately incur the displeasure of the industrial truck manufacturers, who are selling to railroads and re-act against you in a very serious manner. The industrial truck manufacturers will become incensed at your offering this maximum discount to the user when their's is only 5% above this and when it cost them 10% to handle the business with their customers who are anywhere from 60 to 90 days in paying for the goods, whereas on the other hand you receive your payments from some of the manufacturers in 30 days and some of them even discount their bills.

Furthermore, this action on your part in announcing these greater discounts to railroads will immediately become known to your competitors, the lead battery manufacturers, and will be a much easier matter for them to figure against you in price than it has ever been heretofore.

This leaves nothing to your salesman to hold up his sleeve in order to close at the last moment and a circular letter of this nature will not aid you with some of the larger railroads when they learn that any add all railroads, regardless of quantity purchased, can obtain this maximum discount under contract.

Also under our arrangement with you, we do not enjoy any commission where you have made contracts and should you be successful after the roads are returned to private ownership of getting more roads than you now have, tied up with contracts on this basis, it would eliminate us altogether.

We understand that this announcement has been sent to all of the Edison Storage Battery salesmen and yet we have not received a copy and would therefore blindly go ahead and quote what we understood as the Edison Company's policy in this way of prices only to be made a laughing stock of at the very outset.

In the spirit of fair play and honesty will you not have this matter

[ENCLOSURE]

reviewed and give us the opportunity of presenting what we consider to be the fundamental facts in the case before this is allowed to become operative.

Pardon the seeming conceit, but for ten years practically, I with the assistance of Mr. McGinness have been endeavoring to get the railroad business of the country and have been successful as you well know, in tying up the largest users either with contracts or without it, and it is safe to say that a great many roads to whom this proposition will be presented who would not under any circumstances tie up an exclusive contract, will however demand the maximum discount in view of the fact that they are as large purchasers of storage batteries as are those roads or will be those roads who are now under contract or who might enter into contract.

Also immediately that this announcement is made known to certain Axle Generator manufacturers who have not a battery of their own and whom we have now gotten to the point where they are working with us and for you in the attempt to have Edison batteries used wherever possible, with their equipment it will simply antagonize them and if I am not greatly mistaken, they will turn from Edison lead because there will be nothing in it for them whatsoever in attempting to secure Edison battery business when the railroads with whom they are dealing can purchase them as cheaply as they can and under these circumstances they will take the easier course and permit the road either to buy whenever they please or as I have stated before, take the initiative and attempt to sell their equipment with lead batteries.

The lead people in their wildest dreams would protect the manufacturer and the railroad business of the country has always been conducted in all lines on the basis of the manner in which I directed it while with your organization.

Please believe me that this matter is far reaching and will only injure you in the long run, and if you will pardon me, this decision can only have been arrived at due to ignorance of the manner in which the railway supply business is conducted and when you come to realize it, the railroads collectively are the biggest purchasing power in the United States as a class.

To sum this matter up, it has never been necessary to give these discounts in the past to obtain the railroad business.

Yours very truly


President.

[ENCLOSURE]

COPY OF PROPOSED LETTER TO RAILROADS FROM THE SALES DEPT. OF THE
STORAGE BATTERY COMPANY.

TO ALL PURCHASING AGENTS:

Subject: New Discounts.

Please be advised that on new orders received from and after December
1st, 1919, but subject to change without notice, we will extend the following
uniform discounts to railroads.

- First, On orders for Edison Storage Batteries for any purpose
whatsoever, 10% from list price prevailing on date of
acceptance of orders.
- Second, On optional contract or agreement including schedules
for specifications covering Edison Storage Batteries,
15% from list prices prevailing on date of acceptance
of orders.
- Third, On contracts engaging the exclusive purchase of Edison
Storage Batteries for all battery applications, 20%
from list price prevailing on date of acceptance of orders.

The favor of your acknowledgement with statement of your interest
in any of these propositions will be very much appreciated.

Yours very truly,

JOHN KELLY
Gen. Sales Mgr.

By E. M. CUTTING
Mgr. Railroad Dept.

EDISON STORAGE BATTERY CO.

ORANGE, N. J.

EDISON CHEMICAL WORKS DIVISION

SILVER LAKE, N. J.

Mr. Thomas A. Edison,
Laboratory,
Orange, N. J.

My dear Mr. Edison:

I have investigated the question of the number of employees we have on hand and a comparison of the present number with former periods is given you in the following tabulation:

<u>WEEK ENDING</u>	<u>NUMBER EMPLOYEES</u>	<u>WEEKLY PRODUCTION IRON DEPT.</u>	<u>WEEKLY PRODUCTION NICKEL DEPT.</u>
August - 1904	73	1720 lbs. Iron Mix	1895 lbs. Nickel Mix.
Nov. 28, 1910	84	6160 " " "	5200 " " Hyd.
June 14, 1919	176	15000 " " "	18200 " " "
Nov. 22, 1919	181	18000 " " "	16540 " " "

Five months ago we did not have the Laboratory on our payroll, but this was transferred to us this Fall. The Laboratory force includes six men who are working on electrical tests and two men on loading tests, that we have never had before. This is due to the fact that we are making the original loading tests for iron and nickel, and the electrical tests on iron mix, which formerly was done in Orange.

Also due to the fact that the Plant has spread out considerably more, it is necessary for us to have more men in the storeroom, additional watchmen and more men in the yard service.

Also due to more buildings, pipes, etc. there is more in the Maintenance Department.

However, the comparative figures from 1910 to date shows a very decided decrease in men, compared with production.

Due to the decrease in our production crew, and changing over to an eight hour a day arrangement, we expect to reduce the force at once, to some extent, although the production department will continue to have practically the same number of men, but they will be divided into three shifts, whereas they were on two shifts.

Yours very truly,

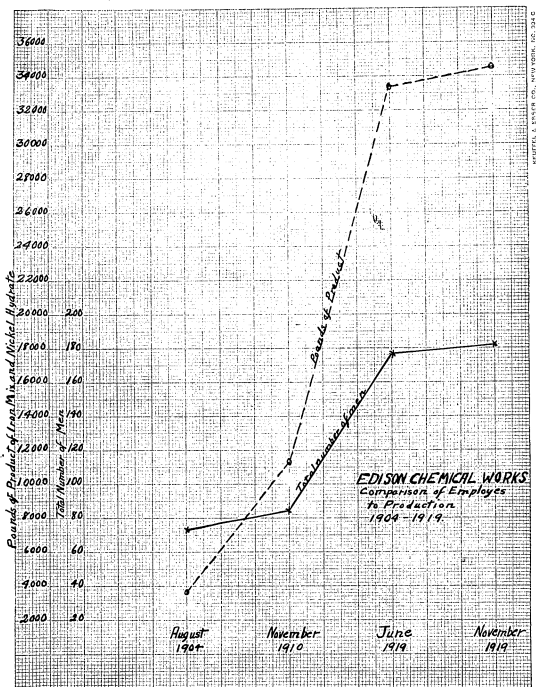
Miller
DIVISION MANAGER.

JVM:FFR

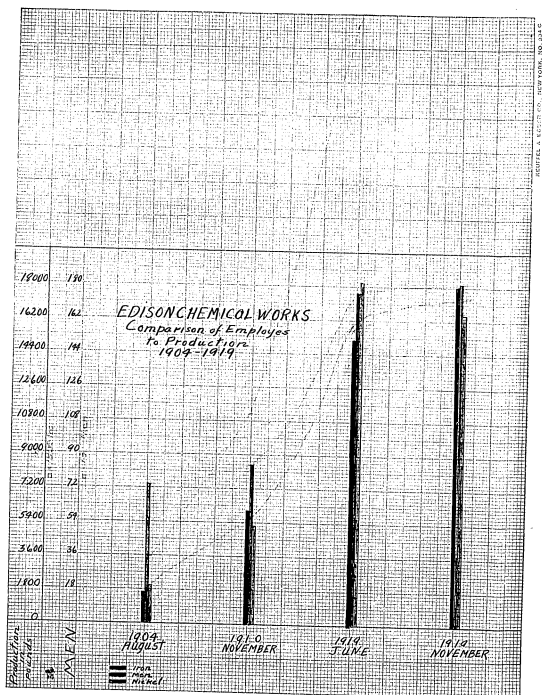
I am getting it for every year. I will have all the year's production all in one place.

Storage Battery

[ENCLOSURE]



[ENCLOSURE]



Dec. 12, 1919.

✓
FROM Arthur Mudd, Secretary
TO Mr. Charles Edison, Mr. S. B. Mambert, Mr. C. E. Sholes,
Mr. H. F. Miller, Mr. J. V. Miller.
SUBJECT Approval of contracts by Mr. Thos. A. Edison, President.

The following is an excerpt from minutes of meeting of Board of Directors held Thursday, Dec. 11th.

"The Chairman stated that the President, Mr. Thos. A. Edison, had requested that no contracts be authorized or approved and ratified by the Board of Directors of Edison Storage Battery Co. unless said contracts shall have been personally approved by him.

In view of the wishes of the President the members of the Board present, viz: Mr. Charles Edison, Mr. S. B. Mambert, Mr. C. E. Sholes, Mr. H. F. Miller and Mr. J. V. Miller, constituting a majority of the Board of Directors, stated that they would individually and collectively, as officers and directors, withhold their approval from any and all contracts which might be submitted to them, unless said contracts shall have been previously approved by the President of the Company, Mr. Thos. A. Edison, or until Mr. Thos. A. Edison shall have withdrawn his request."

ARTHUR MUDD, ✓ Secretary.



CHARLES EDISON.

DIVISION: Export Division of Edison Storage Battery.
SUBJECT: Munnott Agreement.

Memo. No. 127

Date 12/15/19.

Mr. Walter Stevens:

Mr. Edison is satisfied that our case is strong enough against Munnott to win in arbitration. He realizes fully the several weaknesses of our defense when Munnott starts making counter-claims. Also that if we were to lose the arbitration we would have to go on with the old contract for all time, unless it were breached at some future time. The heavy damages we might be subject to do not frighten him, as he believes that in the long run we would be better off without Munnott than with him under the present contract, and is willing to gamble damages against freedom.

He wishes us to make no contract or agreement of any kind with Munnott but to continue to furnish him batteries to meet his needs under a "freight order" basis. If we do this and refrain from making any great attempt to push the sale of batteries in Munnott's territory through other channels until the arbitration is settled, he feels that the damages cannot run into very large figures.

Please be governed accordingly.

CHARLES EDISON.

Approved

*"Munnott did not know the paper
before was not done enough"
etc*

CHARLES EDISON.

DIVISION: Export Division of S. B. Co.
SUBJECT: Monnet Agreement.

Memo. No. 158

Date 12/15/19.

Mr. Edison:

Before acting definitely on the Monnet matter as outlined in the attached to Stevens, I want to feel sure once and for all that you do appreciate the weaknesses that we may have to explain away in arbitration somehow.

Personally, I feel that your directions are exactly what we should do, with this point, however, still in doubt in my mind. Under English law, can a person break a contract and refuse to supply goods, etc., after arbitration has gone against him, by merely paying a lump sum cash damages?

Or, if the arbitration goes against him, can he be forced to continue to supply goods, etc. and conduct business under the contract during its life, and if he resists this order and flatly refuses to go on, can they seize goods or send him to jail or subject him to payments of continuous damages?

If the first is true, then it seems to me the risk we are taking is small. The second is true, then it seems to me that the risk is great.

Should we not get some English Solicitor's opinion before committing ourselves to a definite course of action?

Enc-

CHARLES EDISON

Rec'd by JAC 12/15/19

BATTERY - STORAGE

Wambert

*Sholes is trending towards
Dec. 20, 1937
Centralizing those who are
not the system
which we must
stick to*

FROM: Mr. C.E. Sholes, V.P. & Gen'l Manager
TO: Mr. J.V. Miller, Manager Chemical Works
SUB: Classification and Analysis of Payroll by Departments

Based on your report and in accordance with table attached hereto, the following conclusions are drawn:

There are 225% more employees on private payroll at Chemical Works than at Storage Battery Plant.

The number of employees on Private Payroll on production (foremen and superintendents) is 529% greater than at Storage Battery.

The relationship of employees in the Maintenance, Engineering, Chemical and Electrical Laboratories, Accounting and Executive offices to the total number of employees is greater at Chemical Works than at Storage Battery. On Inspection and Stores the relationship is greater at Storage Battery.

While the relationships brought out in the attached table are not entirely comparable, it does seem that if the Accounting were centralized some reduction could be made. It should be particularly noted that the number of accounting employees for the Storage Battery also includes the employees on Sales Accounting.

It would of course be difficult to combine any other functions, but it is not unlikely that were the two plants combined the percentage of indirect labor could be reduced.

No consideration has been given the Sales or Purchasing Departments since these may be taken as common to both Chemical Works and Storage Battery plants.

Very respectfully,

C.E. Sholes, Gen'l Manager.

C-C to Mr. Thomas A. Edison
C-C to Mr. Charles Edison

CO-2

302Y

December 22nd, 1919

Battery, Storage

✓
FROM: Mr. C.E. Sholes, General Manager.
TO: Mr. Lashman, Legal Department.
SUB: Edison Storage Battery Co.
 Public Service Electric Co.

Referring to yours of Nov. 13th and 26th and Dec. 13th and copies of decision of the New Jersey Supreme Court, Statement of Public Service Electric Co., letter from Mr. Egner of McCarter & English, etc., etc., it is respectfully submitted:

1. This matter was considered at meeting of board of directors held on the 18th inst. and it decided that this company would not for itself appeal from the decision of the Supreme Court, but
2. The General Manager will advise the Manufacturers Association of New Jersey of some of the facts, omissions, and procedures, which seem extraordinary to us.

Incidentally, the writer does not concur in very many of Mr. Egner's conclusions, and understands that the U.S. Supreme Court has already held (unanimously) that the Constitution forbids the Legislature to pass any law impairing the obligations of a contract.

Respectfully,

C.E. Sholes, Gen'l Manager

C-C to Mr. Charles Edison
C-C to Mr. Hambert



DEC 23 1919

EDISON STORAGE BATTERY CO.

Memorandum

December 26, 1919.
Desk #6-3-5341

Mr. W. H. Meadowcroft,
Laboratory.

Confirming our telephone conversation of this date, the attached is a copy of a letter received from the Walker Vehicle Co.

Will you kindly advise if Mr. Edison can furnish the information requested, particularly that mentioned in the 4th paragraph.

EDISON STORAGE BATTERY CO.,
John Kelly, Gen. Sales Mgr.

By *W.H.Bancroft.*
Sales Engineer.

(7)
As far as I know up to the present time all motors have been designed simply as Motors without any regard to the battery either lead or Edison -
I know that in most cases the additional expense of say 2 dollars on a motor would save the cost of a truck from buying 20 dollars worth of battery or ~~the motor~~ A motor battery of ~~the motor~~ vehicle wiring should be designed as a unit so that maximum mileage should be obtained at the minimum cost, I have had trucks come to Laboratory belonging to different Mfg Cos. ~~which~~ for a good during which time I made tests.

Edison
Meadcroft
I wonder if this is what
he wants, if so
say I made the
following notes
on his letter

2

My advice is that you only
 Consider the Motor, wiring,
 + Controller ~~separately~~
 + battery as a whole

I put the problem up to
 the Engineers of the
 Genl Elec + Westinghouse
 Cos to give plans & bids
 for the Motor + Controller
 We will do the same on
 the battery, & that we
 all cooperate to produce
 the greatest per ton mileage
 for the minimum investment
 + amortizement. Taking
 Everything into consideration
 This has never been done

3

~~namely~~ without any exception
 Every truck including those
 made by the General Electric
 lost so much in the wiring
 that from 50 to 150 dollars
 worth of battery had to
 be used to make up for the
 drop in voltage, yet from
 5 to 10 dollars added to
 the Copper would have
 saved this investment in
 battery - Also in the
 struggle to cheapen things
 the Controller had ~~been~~
 insufficient contracts, again
 a saving of per 2 dollars
 cost 15 to 20 dollars
 more investment in battery

[ENCLOSURE]

COPY

WALKER VEHICLE COMPANY

Chicago, Ill.

December 18, 1919.

SUBJECT: MOTOR DESIGN

Edison Storage Battery Company,
Orange, New Jersey.

Gentlemen:

We are now considering the re-design of our entire line of motors with the object of developing the best type possible for use with 60 cells "A" type batteries in localities where the streets are comparatively level and the pavements good, and with 64 cells "A" type batteries where trucks will operate in hilly districts with grades up to 15%, or on poor pavements.

Our object in writing to you is to obtain, if possible, Mr. Edison's recommendation as to the two best men and companies that we can engage to accomplish the best results

As our export business now extends over most foreign countries, we prefer to purchase our motors from either Westinghouse or G. E., due to their foreign and domestic organizations, but we first desire to determine the detail specifications of the best line of motors for use in Walker chassis equipped with Edison "A" type batteries.

In other words, while our present line of motors are giving satisfaction to Walker truck users, we know that the design can be improved and desire to obtain the ultimate type now, due to the fact that it is our intention to expand our production to sales limit.

We, therefore, trust that you will realize the importance of this subject to both your company and ourselves, and we will appreciate any suggestions Mr. Edison or anyone else in your organization will make.

Very truly yours,

[Signed] C. A. Street

General Sales Manager.

Dec. 29,
1919

Maxwell might use him
as a general man to approach he has
first address - would be liked by most people

Mr. EDSON
Mr. CHARLES

understand from others he is inclined to be
lazy + has no imagination, if any thing is

ATTACHED LETTER FROM CITING IS FULL OF HUMOR
dem. I suggest information from outsiders in
INTEREST AND THROWS A SIDE LIGHT ON OUR ORGANIZATION. It is
THOUGHT SHOULD BE OBTAINED, AS TO HIS BUSINESS
NOTE WORTHY THAT ABSOLUTELY NOTHING IN HIS PREVIOUS EXPERIENCE
CAPACITY, JUDGMENT, Etc. PERSONALLY HE
WOULD LEAD ONE TO THINK HE POSSESSED SELLING CAPACITIES IN
IS A FINE MAN, WHICH IN SOME

ADDITION TO HAVING A GOOD PERSONALITY,
POSSESSIONS IS ALL THAT IS NECESSARY
JUST TO THINK THAT IT HAS TAKEN US SEVEN YEARS
TO LEARN THAT HE DID NOT FIT INTO SELLING WORK. NOT VERY
CREDITABLE OF US.

WOULD A MAN WHO HAS COME UP FROM THE
RANKS, THE WAY THIS MAN HAS ADVANCED, MADE GOOD MATERIAL
FOR A BUSINESS MANAGER OF MANUFACTURING OPERATIONS? I THINK
HE WOULD POSSESS CERTAIN QUALITIES VERY DESIRABLE FOR THIS WORK,
AND PROBABLY WOULD BE ABLE TO MESH INTO SUCH WORK WITHOUT
CREATING FRICITION. IF SUCH IS THE CASE, AND WE NEED
ADDED SUPERVISION OF THIS CHARACTER IN WORKS, CAN WE TRY
HIM OUT FOR A TIME.

WE HAVE NEVER SUCCEEDED AS YET IN BUILDING
UP THE SUPERVISION OF WORKS DEPT'S SPENDING HUNDREDS OF THOUSANDS

of Dollars Annually to the point where Mr. Edison's Ideas as
Expressed After the Fire, May be said to have Honestly Had
A Fair Trial. To carry out Mr. Edison's Plan, it is absolutely
essential that we have a High Grade Man on each floor.
So far we have failed because our men have not stood out
prominently as High Grade Leaders.

Most of the Value of our Best Work and
Improved Knowledge of Trets is now Wasted, because no Man directly
on the Floor is constantly going over the Trets, individually and
with Others, to encourage ways and means of Making Improvements.
Mr. Lunt, Mr. Hower, and Mr. Everett do not have the time to do it.

I have not talked to Mr. Cutting, for three
years and so do not know what he would absolutely fit — but
I thoroughly believe that High Grade Men introduced into our
organization will pay us in the long run.

What do you think?

Coming \$4500. Yearly.

Could probably get him to take less if necessary.

Maurice
7/21/14

[ENCLOSURE]

172 Valley Road, West Orange, N.J. Dec. 27th., 19.

My Dear Mr Mambert
I was most agreeably surprised at receiving a Christmas card from Mrs Mambert and yourself as I had no idea that you were aware that I am still in this part of the country. The act of sending a Christmas card would evidence at least no unkindly feeling towards me on your part, and this is also surprising to me as I was given to understand by Mr Sholes when I was kicked out that "The Board had wondered that he had kept me on as long as he had".

In any event, I am here, (brought on from California by Mr Sholes) and the thought has occurred to me, since receiving your card, that perhaps you could assist me in finding that thing which I most want to do. I am attaching a copy of my service record from 1888 up to date, and would explain that while I was handling considerable numbers of men on the Southern Pacific, I made it my business and pleasure to give aid, sympathy, advice, etc. etc. to my men (as well as my girls) when ever the opportunity offered - never intrusively of course - and I have acted both as Judge and Jury on innumerable divorce cases, drunkenness, troubles of various kinds; have gathered men up off the track and gone to their homes and broken the news to their families as gently as possible, arranged all the details of the funeral, and later on have secured a position for some member of the family; and in every way I have tried to do good where ever it was possible.

Since coming with the Edison Storage Battery Co. seven years ago, I have missed the opportunity of doing very much along the lines as written of above, and I have often wished that the time would come when I would again have a chance to do more of that for which it has been stated I am best fitted - namely, some executive work where a large amount of human kindness and sympathy are desirable.

I had even hoped that in leaving California and coming on East, I would eventually find a place in the Edison organization where I could have something to do with the human element, and do that thing that I have so long wanted to do.

Instead of any such chance, I found a brutal man in authority; drunk with power - unkind, overbearing, and domineering towards the rank and file and feared and hated by all of them; hoping that either he would get out or that they could find something else to do at some other place, and when I had the nerve to protest to Mr Sholes about John Kelly's rough treatment of the poor, scared creatures, I was told to attend strictly to my own business, etc. etc. etc. etc.

Enough of this - it is all passed so far as I am concerned; the Edison Storage Battery Co. did not want my services any longer, but as my coming on East was considered by my many friends on the Pacific Coast as a well deserved promotion for faithful service, I would like to connect with some good concern here if possible, and as I have heard much of your own kindly nature, I am prompted to ask if you would be willing to advise me as to methods for getting in touch with some

[ENCLOSURE]

(2)

thing, where I could bring to bear my considerable practical experience along electro-mechanical lines and perhaps have a chance to help smooth out some of the human tangles that might need the kind of help that I could give if I were afforded the opportunity.

I have had such splendid success in some of my past work that it has seemed to me that with all the prevailing unrest, there should be a place for me in some plant to act as a sort of "Shock Absorber" to meet the men, hear their grievances, convince them of my own desire to see that they get a square deal, but at the same time looking out for the best interests of my own employers.

perhaps
As you have forgotten me during the three or four years since I was in your office, I am taking the liberty of enclosing my picture, which I would ask that you kindly return after it has served the purpose of refreshing your memory.

In closing, I wish to say that I very sincerely trust and desire that nothing that I have said regarding my experiences at Edison Storage Battery Factory, will result in any controversy, as under the existing conditions, I am more than glad to be out of there, but I did feel that, in calling upon your help in securing a new position, I might be permitted to present a little of my side of the story.

If, after you have had time to read this, you feel that you could, or would care to talk with me regarding the kind of work that I have done, I would appreciate it very much if I could see you at some place other than your office, as a visit there might be misconstrued. I am living at 172 Valley Road, West Orange, Phone Orange 3799-W.

Thanking you very much for your consideration of this matter,

I remain,

Yours very respectfully



[ENCLOSURE]

- 1888 Commenced working for Southern Pacific R.R.Co. in Signal Dept.as an Apprentice and progressed slowly to Lineman,Wireman,Signal Repairman, Signal Shopman(Bench,Lathe,Forge)Extra Fireman S.P.Electric Light Plant, Extra Signal Towerman,Signal Construction Foreman,Extra Engineer of Lighting Plant.
- 1892 Resigned to take position as Chief Electrician Piedmont Cable Co.,a combined cable and electric street Ry. After two months,promoted to End Engineer in full charge of afternoon and evening watch.There were 13 engines,5 dynamos and 6 steam boilers in the plant,and 12 miles of cable passed through the house every 23 minutes.
- 1894 Returned to Signal Dept.S.P.Co.same work as before,excepting more of the time Foreman on new construction,and generally increased responsibilities.
- 1897 Appointed Signal Supervisor in charge of Signal Operation, Maintenance, and Construction,including the wiring of Depots,Shops, Roundhouses,erry Boats,installation of Shop Motors,Telephones, Lines and Phone Switch Boards.
- 1905 Given charge of all Electric Lighting of Passenger Cars on S.P. lines in addition to Signal work.
- 1909 Appointed Engineer of Train Lighting-Heating-Ventilation in charge of Train Electricians running on trains,Car Wiring,Coach Yard Electricians,Painting Gas Plants,Gas Lighting of cars,Locomotive Head Light Wiring and Locomotive Head Lights.
- 1908 Got 10 Car Lighting men from various Rail Roads to meet at Ogden, Utah where was started the Association of Railway Electrical Engineers. In the Fall of 1909 was elected President and served one year.
- 1912 Resigned from S.P.Co. to accept position as Western Manager of the Edison Storage Battery Co.,commencing Jan. 1st., 1913, with headquarters at San Francisco. I had charge of the Sales and Service work in the 11 Western states for 7 years, reporting to the V.P. & General Sales Manager at Orange,N.J. I opened offices in Seattle, Portland and Los Angeles and appointed Resident Managers reporting to me.I also made selling arrangements with men or Concerns in various parts of my territory to handle the Battery.
- From a few thousand dollars a year, built up the business to as much as \$250,000.00 to \$300,000.00 per year.This is small in comparison with other parts of the country, but the territory was hard to cover as it comprises a third of the area of the U.S.with only 6% of the population.
- 1919 Invited to come to Orange to take charge of the R.R.Dept.Upon arrival was made Ass't Sales Manager.
- 1919 December resigned from Edison Storage Battery Co.
- Dec. While with Southern Pacific was given credit for special ability in handling men.In 1903 started a Signal School for my men, where I taught from large drawings that I had prepared and from working parts set up in shop.This resulted in greater interest, information and progress and I was able to promote men to better positions on other Divisions and also to other Rail Roads.

I am deeply interested in all Betterment Work so far as it is practicable and carried out with discretion and common sense. Can mix freely with all men and at same time never have had any trouble commanding respect and securing willing obedience.

B.M.Cutting.
Room 827 #200-6th Ave., New York City.

1/9/19

Mr Edison

The Board has
approved - subject to your
approval - and provided
we can get permission
to sublet to satisfactory
sub-tenants if and when
desired

Sholes

[ENCLOSURE]

58-1554-10M-116
Old No. 2682

EDISON STORAGE BATTERY CO.

Memorandum

January 9, 1920

January 6th, 1920
Desk 35-11-77

FROM: Sales Committee
TO: Mr. C. E. Shoes
SUB: Additional Office Space for Chicago.

I approve but you should provide some place to move into temporarily after vacating present place for my opinion. The building will not be ready. Considering the weather, labor, etc. I never knew of a case that was so many that way.

For your reference we beg to quote from Minutes of Sales Committee meeting held January 6th:

"Mr. Venable presented letter from Messrs. Moore & Riffert of Chicago, Ill. with reference to building which they propose to build for our use. This communication was accompanied by a letter from Mr. Butler urging immediate consideration for matter of new quarters on account of his present lease will expire on April 30th, and that the owner will want a substantial increase in rent and that the present premises are now very inadequate.

Thos Edison

After very careful consideration of the several suggestions and proposals which have been made it was, on motion duly moved and seconded

VOTED, that in view of the importance of our Chicago business, which during our last fiscal year was about \$859,000.00; that the service station at Chicago must also attend repair work of St. Louis, Kansas City, St. Paul and it is also frequently called upon for assistance to New Orleans, Denver and to help Detroit and Canadian service, this committee approves and recommends to the Board of Directors that we accept proposal made by Messrs. Moore & Riffert as agents for the vacant property at 3130 & 3132 South Michigan Avenue, on which they propose to erect a two story building with approximately 15,500 square feet, and with a handsome green and white tile front (similar to building erected for the Packard Co.) and which they will lease to us for a period of 15 years at 9% of the cost of the building estimated at \$40,000.00 (not to exceed \$50,000.00) plus the taxes and interest, and which would make the annual rental cost not exceeding as follows:

[ENCLOSURE]

SS-154-10M-116
CM No. 2682

EDISON STORAGE BATTERY CO.

Memorandum

-2-

Jan. 6, 1920.

9% on \$50,000.00	\$4,500.00
Taxes and interest, estimated	900.00
Ground Rent	<u>1,250.00</u>
Total	\$6,550.00

and we may discontinue at the end of 10 years by paying a bonus of 10% on the cost of the building.

In this connection this committee calls the attention of the Board of Directors to the fact that the present premises are not only too small to give suitable service to our large business in Chicago, but that the situation is such that we are constantly questioned by the police on account of vehicles back of present building in alley; that with the new building we would have ample space for increased repair work, and which would undoubtedly enable us to earn sufficient to pay for the increased cost of rent; that we could probably obtain a clause permitting us to sub-let to tenant acceptable to the owners, and that this committee does not feel that the 10 or 15 year period is at all unreasonable on this proposition or includes any serious risk of finding ourselves in any undesirable location.

As regards to the location, this committee views that it is perhaps ideal in view of the fact that it is on a direct route and not far from the Walker Vehicle Company, Mercury Manufacturing Company, Chicago Stock Yards, etc., etc. Furthermore, it is believed that if the matter is immediately decided that the building can be finished and ready for occupancy on May 1st or immediately after our present lease expires."

Will you be good enough to present this subject at the next Board meeting, and advise us of their decision in order that we might wire Mr. Butler?

R. C. VEALE,
Secretary.

APPROVED	
_____	192
OE _____	
TAE _____	
SBM _____	
CES _____	
HFM _____	
JVM _____	
TIO _____	
Directors	

EDISON STORAGE BATTERY CO.

Memorandum

January 21, 1920.

FROM: Mr. C.E. Sholes, Gen'l Mgr. E.S.B. Co.
TO: Mr. Meadowcroft, Sec'y to Mr. Thomas A. Edison.
SUB: Seaboard By-Product Coke Company,
Jersey City, New Jersey.

Charles
You know about this

When we had in mind taking over Mr. Edison's property near the Belleville Turnpike in Jersey City and were considering the possibility of locating the Silver Lake plant at that point, Mr. Mac Arthur of the Seaboard By-product Coke Co. told us confidentially of some new arrangements which he proposed to make for railroad facilities and which would be a help to all concerned and asked to buy the triangular strip between the Belleville Turnpike and the Erie Railroad.

Of course our plans went awry but it seems that the Seaboard Co. desires to complete their arrangements and Mr. Mac Arthur has therefore asked us to please learn if Mr. Edison would sell this triangular piece of property and if so at what price.

Will you kindly communicate direct with Mr. D.C. Mac Arthur of the Seaboard By Products Coke Co., or command the undersigned, and greatly oblige,

Very respectfully,

C. Sholes

C.E. Sholes, Gen'l Mgr.

Mr. Meadowcroft-

*Please tell him
that Mr. Edison
won't sell - at
least for the present -
See attached -*

E.

EDISON STORAGE BATTERY CO.

Memorandum

Feb'y 11, 1920.

FROM: Mr. C.E. Sholes, Gen'l Mgr. E.S.B. Co
TO: Mr. Meadowcroft, Sec'y to Mr. Thomas A. Edison
SUB: Seaboard By-Product Coke Company,
Jersey City, New Jersey

With further reference to our letter of Jan. 21st and the small piece of property which they desire to purchase, please be advised:

(1). During today, Mr. C.W. Flanders representing the Seaboard By-Products Coke Co. called upon us and left the enclosed map showing the small triangular piece of property which they desired to purchase and concerning which they particularly asked to know if we will sell.

(2). From the location of the piece that they desire to purchase, you will note that it includes practically all our frontage on the Belleville turnpike, and for this reason

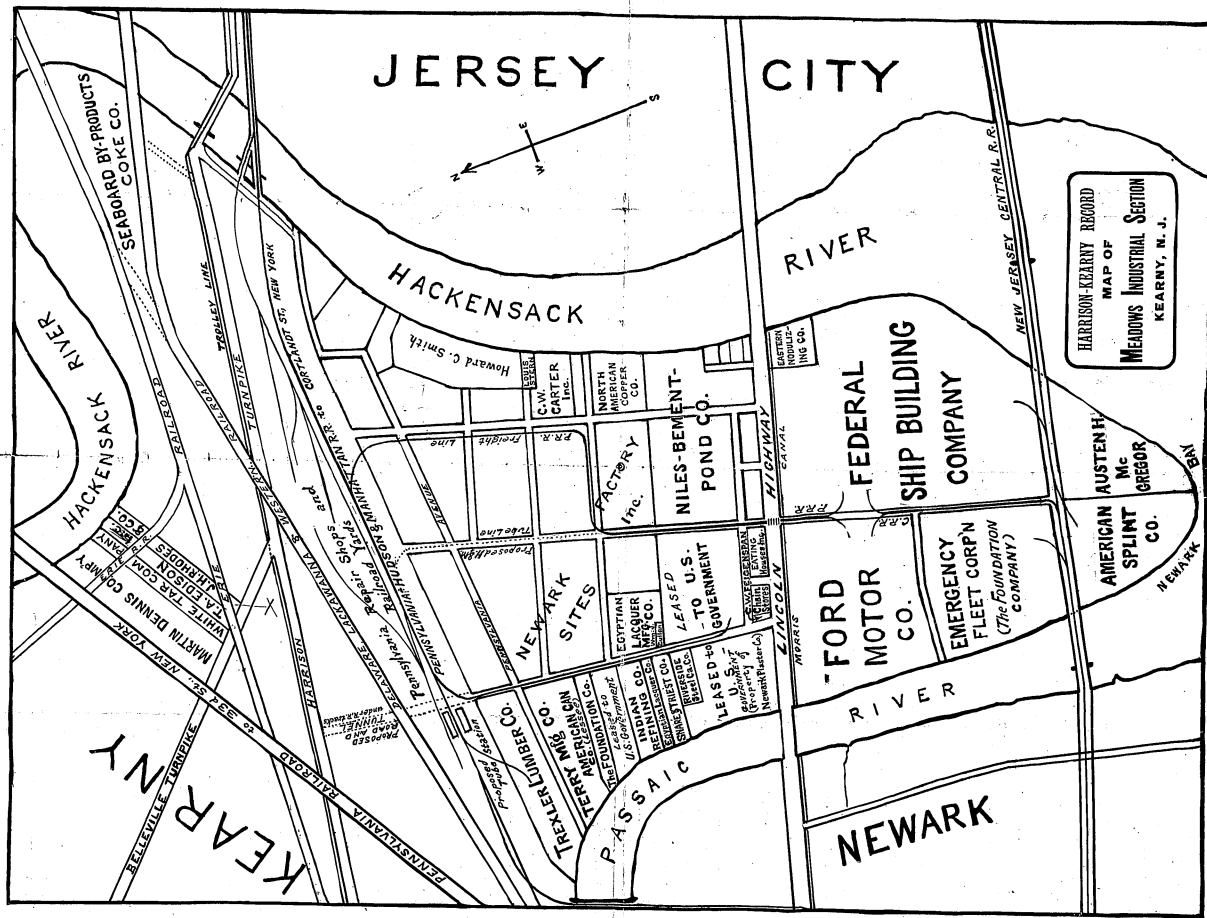
(3). We would recommend that this concern be advised that Mr. Edison is not interested in petitioning the property, at least for the present.

Asking the favor of your consideration and reply, we remain,

C.E. Sholes

C.E. Sholes
Vice Pres't & Gen'l Mgr.

*Charles -- We don't want to sell --
much less the very small piece growing
us Entrance by the Belleville road,
These people must be clean crazy
to think we would 1/4 acre a lot and
off from getting at our property -- They are,
germans & this character also (the German mind)
=*



THOMAS A. EDISON, PERSONAL.

Office of Secretary

February 16th, 1920.

Mr. Thomas A. Edison:

The Storage Battery Company asked us for an order covering work on three samples of specially welded positive tubes delivered by you to them to be loaded with positive tube material and tested to determine effectiveness of construction.

May I trouble you to say whether this is some new work with which you are experimenting or whether it is to be charged to some order on which you are now engaged and if the later to what experiment we are to charge it?

R. W. KELLER
Secretary

This is a trivial Experiment worth
10 to 15 cents - why carry detail to
such a limit

Mr. Ryder-

I didn't get any further word from Mr. Edison on this before he went South. O'Dair says he did quite some work on it and is awaiting Lab. Interfunctional order. Will you please wind it up? If Louis Ott can't give you the full dope, can't we let O'Dair tell Lab. and carry until Mr. E. returns?

Rec'd 3/1/20

Chgo. will be sent more
than 1/2 100.00 - (may be long)
Experiments for Edison

For Mr. Secretary Ott, this
is new construction with
Recurring Anch. Please no charge
REC'D 3/1/20

FROM:-

March 27, 1920.

TO:-

SUBJECT:

Edison Accumulators, Ltd.,
2/3 Duke St., St. James,
London, S.W.1., England.

and
John Ferreol Monnot,
London, England.

Gentlemen:

The Edison Storage Battery Company hereby offers and agrees to sell to Edison Accumulators, Ltd. and Edison Accumulators, Ltd. agrees to purchase from Edison Storage Battery Company upon the following conditions:

Material

All commercial types of Edison Storage Batteries, present and future.

Territory

Edison Accumulators, Ltd. is to have the exclusive sale of the Edison Storage Battery to customers in and for use in Great Britain and Ireland except that the Ford Motor Company shall have the right to import into such territory Ford cars equipped with Edison Storage Batteries for starting, lighting, ignition, or any other purpose excepting propulsion, and to import Edison Storage Batteries required for such purposes for Ford cars manufactured in such territory, and to use and sell in such territory such cars so equipped. As to other places the right of Edison Accumulators, Ltd. to sell shall be non-exclusive, except that it shall have no right to sell to customers in or for use in the United States, Canada, Australia, New Zealand, British East Africa, Union of South Africa comprising Cape of Good Hope, Natal, Transvaal, Orange Free State and Rhodesia, or any other country, colony or possession (other than Great Britain and Ireland) as to which Edison Storage Battery Company has or shall hereafter make an exclusive sales contract or arrangement. But in such event, Edison Accumulators, Ltd. shall be entitled to 90 days' notice of such curtailment of its non-exclusive selling right and shall have 12 months from the date of such notice within which to fill orders accepted prior to the date of the notice.

Quantity

Edison Accumulators, Ltd. agrees that it will not handle, sell nor offer for sale any Storage Batteries or parts thereof other than those purchased hereunder and that it will purchase from Edison Storage Battery Company its entire requirements of Storage Batteries and parts thereof for all purposes, but which shall not exceed 3000 A-4 Type Cells

FINANCIAL MEMORANDUM No. _____
DATE _____
EFFECTIVE _____

FROM—

TO—

-2-

SUBJECT:

per month or the ampere hour equivalent thereof in cells having the same sized tubes and 1500 G-4 Type Cells per month or the ampere hour equivalent thereof in cells having the same sized tubes, except that said quantities may be increased upon six months' notice by 1500 A-4 Type Cells or equivalent and by 750 G-4 Type Cells or equivalent until the total quantity hereunder shall be equal to 12000 A-4 Type Cells per month or the ampere hour equivalent thereof in cells having the same sized tubes and 6000 G-4 Type Cells per month or the ampere hour equivalent thereof in cells having the same sized tubes, but such notices shall not provide for any increase within less than 6 months after the next preceding increase.

Quality and Inspection

Equal to commercial standard existing at the time of shipment, Edison Accumulators, Ltd. may return to Edison Storage Battery Company at the expense of the latter, positive or negative plates that fail to give standard performance (i.e. in accordance with standards of Edison Storage Battery Company) on formation or any other parts that show defective manufacture. Edison Storage Battery Company agrees to replace such defective plates or parts at its expense delivered in London at the earliest possible date after receipt of material complained of.

Price

United States list prices on date orders for prompt shipment are received and accepted by Edison Storage Battery Company and United States list prices current on date of shipment of orders accepted for future delivery, for all standard type cells and parts, less discounts and allowances as follows:

Upon all standard types A and B Cells, unformed, with dry electrolyte, and parts, a discount of 25% and after such deduction an allowance of 5% to cover cost of maintenance of service and your guaranty to customers and 1-1/2% thereafter to cover cost of forming. After such deductions a discount of 2% for cash against shipping documents F.A.S. New York.

Standard G and L Cells, unformed, with dry electrolyte, and parts, a discount of 20% and after such deduction an allowance of 5% to cover cost of maintenance of service and your guaranty to customers and 2-1/2% thereafter to cover cost of forming. After such deductions a discount of 2% for cash against shipping documents F.A.S. New York.

FINANCIAL MEMORANDUM NO.
DATE
EFFECTIVE

FROM--

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TO--

SUBJECT:

Standard Minor's Lamps complete, types L-8 and parts, 40%, plus 2% additional for cash against shipping documents, F.A.S. New York.

Electrolyte 10%, plus 2% additional for cash against shipping documents F.A.S. New York.

All United States list prices and all discounts and allowances subject to change on 60 days cable notice by Edison Storage Battery Company, but Edison Accumulators, Ltd. shall never be quoted lower discounts than the then current discounts extended to large buyers in the United States, plus the above allowances for forming, etc.

Terms

Cash in New York against shipping documents F.A.S. New York.

Deliveries

As close to the dates indicated on your formal purchase orders, issued to conform herewith, as the use of reasonable diligence on our part will permit. It is understood that strikes, fires, acts of God and the public enemy, inability to obtain materials except at exorbitant prices, delay in obtaining materials, or any other unforeseen or unavoidable cause, unless due to the failure of Edison Storage Battery Company to use reasonable diligence, shall entitle the latter to reasonable delay in filling such orders, and in such event it shall have the right to limit or pro rate its shipments upon such unfilled orders to a quantity equal to 10% of the commercial output of its plant, but if its inability to fill orders is caused by inability to obtain material except at an exorbitant price, Edison Accumulators, Ltd. may supply the material to enable Edison Storage Battery Company to furnish the full quantity.

Guaranty

See Quality and Inspection. No guaranty by Edison Storage Battery Company to customers of Edison Accumulators, Ltd.

Formation

Edison Accumulators, Ltd. agrees to form cells purchased hereunder at its expense and do all things necessary to render such cells ready for commercial purposes. Edison Storage Battery Company to furnish the necessary first fill dry electrolyte.

Service

Edison Accumulators, Ltd. agrees to maintain an adequate organization for giving expert service to its customers during the

-4-

FROM:-

TO:-

SUBJECT:

entire time cells are in use by them.

Exploitation

Edison Accumulators, Ltd. and Mr. John Ferreol Monnot agree to at all times use their best skill and ability in promptly and energetically pushing the sale and use of Edison Storage Batteries in Great Britain and Ireland, and Edison Accumulators, Ltd. further agrees that so long as this agreement shall continue, sufficient capital will be furnished and suitable and sufficient organization (including battery inspectors) shall be provided and all necessary and usual steps taken to create and promote public demand for Edison Storage Batteries in Great Britain and Ireland and to care for and supply such demand.

Royalties

Edison Accumulators, Ltd. agrees to pay to Mr. Thomas A. Edison a royalty on each cell supplied to it hereunder at the rate of Twenty (20) Cents for each one hundred (100) ampere hours of capacity as rated by Edison Storage Battery Company in addition to the price hereinbefore provided, but only so long as any British patent on storage batteries or any improvement thereon owned or controlled by Mr. Edison shall be in force. Such royalties to be payable quarterly in United States Gold or its equivalent to Mr. Edison at West Orange, N. J.

Period Covered by this Agreement

Five years from the date hereof, subject, however, to cancellation by either Edison Storage Battery Company or Edison Accumulators, Ltd. on 90 days' written notice in the event that any of the stipulations herein set forth are breached by the other. In the event that such breach is disputed the question shall be determined under the provisions of the British Arbitration Law.

Acceptance

Your acceptance of this offer will effect the cancellation of all outstanding agreements between you or either of you and ourselves or either of us and the extinguishment of all claims arising therefrom except payment by you or either of you, of any sum now or hereafter due for any merchandise or material supplied or royalties accrued or accruing under such agreement and except our liability to you or either of you in respect to defective materials supplied, or income tax accruing prior to the date hereof.

Yours faithfully,

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FINANCIAL MEMORANDUM NO.
DATE
EFFECTIVE

FROM-

TO-

SUBJECT:

EDISON STORAGE BATTERY COMPANY

Attest:

BY Charles Edison
Chairman of the Board of Directors

Stephen A. Mumbert

Thos. A. Edison

We hereby accept and agree to all of the terms, conditions
and covenants contained in the foregoing letter.

EDISON ACCUMULATORS, LIMITED

By J. F. Lemmot
Managing Director

J. Lilly Palmer
Director

Dated: March 27, 1920.

J. F. Lemmot.

FINANCIAL MEMORANDUM NO.
 DATE
 EFFECTIVE

FROM—

TO—

"Annex to letter Contract of Mar. 27, 1920".

SUBJECT:

Assembly

For the purpose of Assembly only, of cells of our current commercial types, we will sell Edison Accumulators, Ltd. complete sets of component parts of cells with the Steel Containers in a knocked down condition for it to complete and without wooden trays which it will make itself. For these complete sets we will charge it the same prices as for complete cells stipulated in this agreement, less an allowance of $\frac{1}{2}\%$ for the cost of assembling the cells and $\frac{1}{2}\%$ for the cost of the trays.

Electrolyte

Edison Accumulators, Ltd. have the right to purchase electrolyte material to their best advantage provided the quality of same is equal to that supplied by us and sample of such material is approved by us, such approval or disapproval shall be cabled within thirty days after the receipt by us of such samples. Should, however, we give disapproval our reasons therefor shall be stated. Allowance for electrolyte to be made to you from the price of the complete cell.

Cancellation

Should Edison Accumulators, Ltd. in their absolute discretion find that the prices and discounts herein contained have become, for some reason, not profitable to them, they have the right to cancel this agreement by serving Edison Storage Battery Co. with ninety days notice in writing to this effect.

In the event of goods supplied by Edison Storage Battery Co. not being of standard quality, to the extent that $5\frac{1}{2}\%$ (five percent) or more, do not develop this rated capacity after forming, Edison Accumulators, Ltd. have the right to cancel this agreement by serving Edison Storage Battery Co. with ninety days notice in writing.

Attest:

EDISON STORAGE BATTERY CO.

Stephen H. Mambert

By Thos. A. Edison,

President.

Thos. A. Edison

We hereby and accept and agree to all the terms, conditions and covenants contained herein the foregoing letter.

FINANCIAL MEMORANDUM NO. _____
 DATE _____
 EFFECTIVE _____

FROM—

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TO—

"AMBOX to letter contract of Mar. 27, 1920".

SUBJECT:

EDITOR ACCUMULATIONS LTD.

by J. F. Monnot
 Managing Director

and
 by J. Lilly Palmer
 Director

April 1st, 1920.

EDISON STORAGE BATTERY CO.

Memorandum

April 8, 1920.

From: The Orange-Silver Lake Technical Advisory Committee.
To: Laboratory of T.A. Edison.
Subject: Use of reclaimed iron mix in regular iron mixes.

At the 42d meeting of the Technical Advisory Committee held on this date, the use of reclaimed iron in new iron mixes was discussed; and it was brought out that while considerable work has been done on the use of reclaimed iron, exact data was not available at this time. Inasmuch as the present accumulation of reclaimed iron mix compels the use of more than 10% of reclaimed iron mix in new mixes, and further since the exact effect of increasing amounts of reclaimed iron in new mixes not fully known, it was voted, on motion duly made and seconded, that this committee request the Laboratory of Mr. T.A. Edison to advise if any data is on file in the laboratory which shows the relationship existing between increasing amounts of reclaimed iron in new iron mixes and the electrolytic capacity of the resultant iron mixes. This request is made with the view of avoiding any duplication of work which has been previously covered by the laboratory.

Respectfully,

The Technical Advisory Committee

R. M. Dunn, *E.M. Dunn*

Chairman

Copies to F.W. Cunningham
H.H. Cox
W.J. O'Dair
T.A. Comm. File

*Say that test cells
were made of different
amounts of reclaimed iron from
5% 10% 15% up to 50 percent
& they must be on file at
Edison Storage Battery Edison*

DATE: April 9, 1920

EFFECTIVE

FROM: Secretary, Edison Storage Battery Co.
 TO: E. S. Lambert, Vice Pres't and Financial Executive
 SUBJECT: Agreement - Edison Accumulators, Ltd.
 Ref: "Annex to letter contract of March 27, 1920".

Referring to paragraph one "Assembly", of above, I have checked over the cost figures and would recommend that "an allowance of $\frac{2}{3}$ for the cost of assembling the cells and $1\frac{1}{2}\%$ for the cost of the trays" be made and that these percent figures be inserted in the annex to letter contract of March 27, 1920.

The percentages given in the preceding paragraph to apply to A, B, and G type cells. Would recommend that the small type (L type and M type) be not shipped unassembled, although if Edison Accumulators demand the same percentages for allowances can be used.

Attached is a comparative statement showing by cell types the net amount of the allowances for forming, trays and cell assembling, together with the cost figures.

The $2\frac{1}{2}\%$ allowance from list for forming has already been made part of the agreement of March 27th.

The allowance of $1\frac{1}{2}\%$ from list for trays and $\frac{2}{3}$ from list for cell assembling are the amounts recommended by the writer in this memorandum. It should be understood that included with "Trays" is "Battery Assembling", that is, putting the batteries into the trays.

The writer's opinion is that these percentages are about as near an average for all types of cells as can be worked out.

It should be noted that the allowances for trays on G and B type cells very closely approximate the cost, and on A type cells there is a very slight advantage in favor of the E. S. B. Co.

On cell assembling, it should be noted that the allowances on A type cells are nearly all slightly in excess of cost, but in averaging all types the percentage used is fair.

---000---

Arthur Ludd

Secretary

DATE April 9, 1920

EFFECTIVE

FROM: Secretary, Edison Storage Battery Co.

TO: S. B. Lambert, Vice Pres't and financial Executive

SUBJECT:

Types	2 1/2% List Forming			1 1/2% List Troyes		2% List - Cell Assembling			
	List	Allow.	Cost	Allow.	Cost	Allow.	Cost	Over	Under
A-4	19.75	.35	.27	.21	.27	.27	.29		.02
5	24.50	.44	.30	.25	.34	.35	.31	.02	
6	29.50	.53	.35	.30	.40	.40	.33	.07	
8	36.	.68	.43	.29	.54	.51	.45	.06	
10	46.50	.86	.50	.50	.67	.66	.52	.14	
12	57.25	1.02	.56	.59	.81	.78	.64	.14	
	<u>217.50</u>	<u>3.68</u>	<u>2.41</u>	<u>2.24</u>	<u>3.03</u>	<u>2.95</u>	<u>2.54</u>	<u>.41</u>	
B-1	6.50	.12	.18	.07	.07	.09	.18		.09
2	8.75	.16	.18	.09	.07	.12	.19		.07
4	11.75	.21	.21	.12	.14	.16	.24		.08
6	15.	.28	.25	.16	.21	.22	.32		.10
	<u>43.00</u>	<u>.77</u>	<u>.83</u>	<u>.44</u>	<u>.49</u>	<u>.59</u>	<u>.93</u>		<u>.34</u>
G-4	17.	.32	.22	.19	.18	.25	.43		.18
5	24.25	.46	.27	.25	.27	.35	.61		.26
7	28.50	.54	.29	.31	.32	.42	.66		.24
9	35.25	.66	.35	.39	.40	.51	.72		.21
11	42.50	.81	.41	.46	.49	.62	.82		.20
14	54.	1.03	.48	.58	.62	.79	1.05		.26
18	69.	1.21	.55	.75	.80	1.	1.28		.28
	<u>270.50</u>	<u>5.13</u>	<u>2.57</u>	<u>2.94</u>	<u>3.08</u>	<u>3.94</u>	<u>5.57</u>		<u>1.63</u>
	531.00	9.78	5.81	5.62	6.60	7.48	9.04		1.56

(All allowances) (All allowances)
(OVER cost) (UNDER cost)
(except g1-B2) (except G4 (1 1/2))

REF 4
FINANCIAL MEMORANDUM No. 1
DATE April 18th, 1920
EFFECTIVE

FROM- Secretary. - Thomas A. Edison, Person
TO- Arthur Mudd, Secretary, Edison Storage Battery Company.

SUBJECT: Agreement Edison Accumulators Limited.

Thank you for your memorandum 3 332 of April 9th enclosing copy of agreement between Edison Storage Battery Company, Thomas A. Edison, Edison Accumulators, Ltd., and John Herrold Monnot dated March 27th and copy of "Annex to letter contract of March 27th, 1920".

I am wondering whether, inasmuch as Mr. Edison is one of the parties to this agreement, a signed copy of the agreement was not provided for him. If you have a signed copy of this please send it to me.

Will the Edison Storage Battery Company or the Export Div. ision report to us the cells supplied under this agreement to enable us to check up with Monnot on royalty statements? It seems to me it would be well for us to receive this report monthly in such shape that we can determine the basis and amount of indebtedness to Mr. Edison on account of these royalties.

Has any particular time been set for the quarterly payment of royalty, that is, are statements to be made on the basis of calendar quarters or otherwise?

I presume that royalties are considered to be accrued as soon as cells are shipped.

Under paragraph entitled "Acceptance" being the last paragraph of agreement, you make reference to the liability on account of "income tax accruing prior to the date hereof". This is a matter, I take it, of interest only to Edison Accumulators, Ltd., and Edison Storage Battery Company, but I do not find any other reference to income tax liability in the agreement.

Can you tell me what disposition is to be made of the balance remaining in our deposit account representing the balance remaining from money advanced by Mr. Monnot at the time of signing what I believe was the original agreement with him and against which a portion of royalty charged him was to apply? I notice that no provision is made for the setting up of an additional amount to this deposit account under the present agreement.

In the first paragraph entitled "Assembly" of the Annex letter contract March 27th, the percentages to be allowed for assembling and cost of trays are omitted on the copy you have sent me.

R. E. KELLOW
Secretary

Edison Storage Battery Co.



EXPORT DIVISION

110 NASSAU STREET
NEW YORK

TELEPHONE, BEERMAN 9738

CABLE ADDRESS
"ZYMOTIC, NEW YORK"
WESTERN UNION, A. B. C.
AND LETTER CODES
USED

April 19-1920.

Mr. W. H. Meadowcroft,
Laboratory,
Orange, N. J.

Dear Mr. Meadowcroft:—

Mr. Geo. M. Wise, Managing Director of the Jost's Engineering Co., Ltd., Apollo Street, Bombay, India, met Mr. Edison some months ago and in a letter just received from Mr. Wise he requests that we send to his Bombay address an autographed photograph of Mr. Edison. As Mr. Wise's company are important clients of ours in the sale of Edison Storage Batteries in India, I am sure Mr. Edison would not object to sending Mr. Wise his photograph to be displayed in his Bombay office.

Mr. Edison further stated in his letter that Mr. Edison had requested him to send particulars regarding certain gums, etc., which were obtainable in India. Evidently Mr. Wise did not understand exactly what Mr. Edison required, and he asks that we obtain this information for him.

If you will kindly forward one of these photographs to me, together with the particulars required, I will be glad to transmit same to Mr. Wise as soon as received.

Yours very truly,

EDISON STORAGE BATTERY COMPANY,

Nathan Sherman

Vice-Pres. & Mgr. Export Division.

Any kind of gums, waxes +
Resins, except Shellac Resins
or Paraffin wax WSJ

To

GEO. M. WISE

*Photo sent to
Mr. Stevens
5/10/20*

April 20, 1920.

Mr. E. M. Dunn, Chairman,
The Technical Advisory Committee,
Edison Storage Battery Co.

I sent down to Mr. Edison in Florida, your memorandum of April 8th, in regard to Laboratory data concerning percentages of reclaimed iron mix.

Mr. Edison has sent me a memorandum asking me to say to you that test cells were made of different amounts of reclaimed iron, ranging from 5%, 10%, 15% up to 50%. He says that the records of these test cells must be on file in the Edison Storage Battery Company archives.

W.H.MEADOWCROFT.

Mr. Mansuet

May 27, 1920.

FROM: Mr. C.E. Sholes.
TO: Mr. Thomas A. Edison.
SUB: Unveiling of Memorial Tablet.

(and)
Edison, T. A. - Honors
of Awards

In connection with the exercises which will be held at 12:30 o'clock tomorrow (Friday), Mr. Charles Edison has said that you would be kind enough to unveil the tablet for us. The general plan is as follows:

1. Part of Handel's "Largo" by the Band.
2. Oration by Ray Hunt, Chaplain of the Edison Industries Post of the American Legion.
3. Unveiling by Mr. Thomas A. Edison and firing of three rounds by squad of Legionnaires while buglers on top of Battery Building sound "taps".
4. "My Country 'tis of Thee".
5. About three hundred girls representing all divisions of the Edison Industries will deposit wreaths and flowers under the tablet.
6. National Anthem.
7. Return march to "Onward Christian soldiers" by the Band.

If agreeable, I will bring Mr. Hunt to your office at 12:25 and serve as guide (and representative of the Legion) for yourself (and any others whom you may desire to bring), to the proper place beside the tablet.

It is hoped that Mrs. Edison can conveniently attend with you, and that other officials in your party will bring their wives when I will ask the privilege of bringing Mrs. Sholes.

Hoping this is satisfactory, I am,

Faithfully yours,

(C.E. Sholes)



0521 1234 YAM

EDISON STORAGE BATTERY COMPANY

Memorandum

June 16, 1920;

From: C.E. Sholes, Gen'l Mgr., E.S.B.Co.

To: Mr. Thomas A. Edison.

Subject: Get-together meeting of Edison technical men.

In order that the technical men of the Industries may perhaps become a little better acquainted, an informal gathering has been planned for Monday, June 21st, at 5:30 P.M., in the Assembly Hall (old Restaurant) of the Battery Building.

Allen Rogers of Pratt Institute will give an informal talk, and show some slides and moving pictures of his adventures in the shark leather and oil industry, and which we can assure you will be very interesting as well as amusing.

Mr. Dunn of the Chemical Works Department will also talk informally of his experiences in the copper refining industry, after which we will adjourn to the Restaurant and have supper together.

You are cordially invited to attend.

C.E. Sholes

C. Sholes
Vice Pres. & Gen'l Mgr.

C O P Y.

July 7, 1920.

Mr. Maurice E. Fox,
Hotel Seymour, 50 West 45th Street,
New York City.

Dear Sir:

You have informed us that you propose to form a Company on the Continent of Europe, of which you will be the active head, for the sale of Edison Storage Batteries and Accessories. Contingent upon your ability to form such a Company, the Edison Storage Battery Company hereby offers and agrees to sell to you, and you agree to purchase from the Edison Storage Battery Company, all commercial types of Edison Storage Batteries, upon the following terms:-

MANAGEMENT:

This agreement, and all terms and conditions herein, are contingent upon you, Maurice Edward Fox, being and remaining the active head of the proposed Company during the period of this agreement. In the event of your death or incapacity, your successor shall be subject to the approval of the Edison Storage Battery Company.

TERRITORY:

You are to have the exclusive sale of Edison Storage Batteries and Accessories to customers in and for use in Belgium, France, Italy and Switzerland; it being understood and agreed, however, that any American vehicle manufacturer shall have the right to sell and to ship into the territory covered by this agreement vehicles completely equipped with Edison Storage Batteries. It is also understood that the Ford Motor Company may in addition import Edison storage batteries required for starting, lighting, ignition or any other purpose, for use on Ford cars manufactured in such territory, and use and sell in such territory Ford cars thus equipped.

It is understood that we have an agreement with Edison Accumulators Limited, whereby that Company is entitled to ninety days' notice of any curtailment of its non-exclusive selling right in the countries covered by this agreement, and is entitled to have twelve months from the date of such notice within which to fill orders accepted prior to the date of the notice. It is expressly agreed that this agreement is subject to such rights of Edison Accumulators Limited.

QUALITY AND INSPECTION,

All Edison Storage Batteries supplied under the terms of this agreement shall be equal to commercial standards existing at the time of shipment. You may return to us at our expense Edison cells or accessories that fail to give standard performance (i.e., in accordance with standards of the Edison Storage Battery Company), when tested upon arrival, or any other parts that show defective manufacture. The Edison Storage Battery Company agrees to replace such defective cells, accessories or parts at its expense, delivered f.a.s. Steamer, New York.

GUARANTEE:

See Quality and Inspection. No guaranty by the Edison Storage Battery Company to your customers.

Page 2.

SERVICE:

You agree to maintain an adequate organization for giving expert service to your customers during the entire time cells are in use by them.

PRICE:

U. S. List Prices current on date orders for prompt shipment are received and accepted by the Edison Storage Battery Company, and U. S. List Prices current on date of shipment of orders accepted for future delivery, for all standard type cells and parts, delivered f.a.s. Steamer, New York, less discount and allowance as follows:

Standard A and B type cells complete with electrolyte, and parts thereof: twenty-five (25%) per cent discount and five (5%) per cent allowance for exploitation, plus an additional two (2%) per cent for cash against shipping documents.

Standard C and L type cells complete with electrolyte, and parts thereof: twenty (20%) per cent discount and five (5%) per cent allowance for exploitation, plus an additional two (2%) per cent for cash against shipping documents.

Standard Miner Lamps complete, type M-S cells complete with electrolyte, and parts thereof: Forty (40%) per cent, plus an additional two (2%) per cent for cash against shipping documents.

Extra Electrolyte: ten (10%) per cent, plus an additional two (2%) per cent for cash against shipping documents.

In each case the discount or allowance is to be calculated on the net amount remaining after the preceding discount or allowance has been deducted.

All U. S. list prices are subject to change without notice. In case of any increase in such prices we shall advise you by cable that an increase has been or is about to be made, to be followed by a letter, in accordance with the paragraph hereof marked "NOTICE", stating such increases definitely, and such increased prices shall not be applied to shipments to you under this agreement until sixty (60) days shall have elapsed from the date of mailing such letter.

All discounts quoted herein may be subject to revision every six (6) months, but with at least three (3) months' advance notification of such revision; but in no case shall discounts be made less than twenty-five (25%) per cent for A and B type cells and parts thereof, twenty (20%) per cent for C and L type cells and parts thereof, and thirty-five (35%) per cent for complete Miner Lamps, M-S cells, and parts thereof.

TERMS:

Cash in New York, against shipping documents, f.a.s. Steamer, New York.

DELIVERIES:

As close to the dates indicated on your formal purchase orders, issued to conform herewith, as the use of reasonable diligence on our part will permit. It is understood that strikes, fires, acts of God and the public enemy, inability to obtain materials except at exorbitant prices, delay in obtaining materials, or any other unforeseen or unavoidable cause, unless due to our failure to use reasonable diligence, shall entitle us to reasonable delay in filling such orders.

EXPLOITATION:

You agree at all times to use your best skill and ability in promptly and energetically pushing the sale and use of Edison Storage Batteries in Belgium, France, Italy and Switzerland, and you further agree that so long as this agreement shall continue, sufficient capital will be furnished and suitable and sufficient organization shall be maintained, (including battery inspectors), and all usual and necessary steps taken to create and promote public demand for Edison Storage Batteries in said territory, and to care for and supply such demand.

PERIOD COVERED BY THIS AGREEMENT:

This agreement shall remain effective for a period of two (2) years from the date of receipt of your notification (either by cable or letter) of the formation of your Continental Company, it being understood, however, that this agreement is rendered void unless we receive your said notification on or before November 1, 1920. It is further understood and agreed that this contract may be extended for one or more successive periods of two years each, if so desired and agreed to by both parties. In case either party shall desire not to extend this agreement for any such successive two year period, such party shall give notice in writing to the other party at least six months prior to the expiration of the two year period then running. In case neither party shall have given such notice and no extension shall have been agreed upon, then and in that event the two year period then running shall be extended for a period of six months.

This agreement shall be subject to cancellation by either party hereto, on ninety (90) days' written notice, in the event that any of the stipulations herein set forth are breached by the other.

NOTICE:

Any notice to be given by us under this agreement may be given by the mailing of a registered letter, postage prepaid, addressed to you or any officer of your Company at your or his last known address, and the date of mailing of such letter shall be considered as the date when such notice is given.

Yours truly,

EDISON STORAGE BATTERY COMPANY

By Charles Edison,

Chairman of the Board of Directors.

Attest:

Stephen B. Mambert,
Vice-President & Financial Executive.

I hereby accept and agree to all the terms, conditions and covenants contained in the foregoing letter.

Maurice E. Fox.

Dated July 7th, 1920.

TO: Edison Storage Battery Co.
The Edison Storage Battery Supply Co.
Edison Storage Battery Garage, Inc.
Arthur Mudd, Secretary

FROM:

TO: R. H. Allen, Assistant Financial Executive

DATE Aug. 7, 1920

EFFECTIVE

SUBJECT: Statement of income, year ending Feb. 29, 1920

Sales	\$6,136,419.81	
Cost to Make & Sell	<u>5,667,118.78</u>	\$479,301.03
Deductions		
Depreciation of Bldgs	89,447.80	
" " Equipment	355,542.66	
" " Patents	158,004.49	
Reserve for Self Insurance	30,330.16	
" " Contingencies	145,709.34	
" " Doubtful Accounts	<u>1,221.09</u>	<u>780,325.54</u>
Net Loss		\$261,024.51

✓ *Arthur Mudd*
Arthur Mudd, Secretary

EDISON STORAGE BATTERY COMPANY
ORANGE, N. J.

TAE, INC. - 157.4
Rec'l & retrain Div.

August 20, 1920.

From: W. J. O'Dair,
To: F. W. Cunningham
Subject: Cell Reclaim Shop

Mr. Edison plans to carry on all reclaim operations at Silver Lake. Since our present method of handling this work will not produce a flaked oxide mixture that is in good condition for reclaiming, Mr. Edison has instructed that no additional cells be opened.

All stocks of cells now on hand are to be shipped to Silver Lake and stored with the Salvage Division. Mr.

Schell advises that space is available and will be definitely assigned by Mr. Kiloh, Chief Storekeeper.

Will you please instruct accordingly? It is recommended that the Cell Reclaim Shop operate until all parts of cells now on hand are disposed of, and at a later date arrangements should be made for the transfer of equipment to Silver Lake.

W. J. O'Dair

CC Mr. S. B. Mumbert
F. R. Schell
W. M. Sheldon

WJO'D/JMA

THOMAS A. EDISON, PERSONAL.

Office of Secretary

August 30, 1920.

Mr. C. M. Ryder,
Laboratory Office Manager:

This is the first opportunity I have had to confirm my informal memorandum to you regarding experiment opened on the request of Mr. Altengarten in connection with nickel plating process to be worked on by Mr. Edgerton and charged to Edison Storage Battery Company.

Mr. Edison confirms this request and states that he wishes a separate order opened and the cost kept separate from the order for continuous plating process. It would be satisfactory for you to ask Edison Storage Battery Company for an order.

R. W. Kellow,
Secretary.

Ediphoned
RWK:24

FUNCTION

Edison Storage Battery Co.

FINANCIAL MEMORANDUM No. 6877
DATE: September 1, 1920
EFFECTIVE Date of Issue

FROM

Vice President and Financial Executive.

TO

Mr. Frank D. Fagan, Vice Pres't & Gen'l Mgr.

SUBJECT

Rejuvenated Cells.

*Noted
TFC*

Dear Mr. Fagan:

In an informal talk which took place today between Mr. Edison and Mr. Kelly, Mr. Kelly asked Mr. Edison to advise him relative to his policy in regard to Rejuvenated Cells.

Mr. Edison stated that he was now starting upon experimenting and developing a method of rejuvenating cells in accordance with which he thought we would be able to save practically all of the value in a returned cell and that same could be either sold or leased with a guarantee on a basis practically the equal of the new cells.

Mr. Edison further explained his ideas in this regard by pointing out to Mr. Kelly that at the present time, we were selling practically no cells at all, but in reality were renting or leasing them, in view of the fact that our conditional sale based upon a guarantee was more in the nature of a lease rental than in the nature of an unrestricted sale.

This memorandum is for the purpose of keeping you as fully advised, as it is possible so to do.

Manuel

Edison Storage Battery Co.

CHARLES EDISON
CHAIRMAN
OF THE BOARD



ORANGE, N.J., U.S.A.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON PRESIDENT
STEPHEN M. HANBERT VICE-PRESIDENT AND
 FINANCIAL EXECUTIVE
G. W. BOWLER VICE-PRESIDENT AND
 GENERAL MANAGER
H. P. MILLER TREASURER
ARTHUR HUGG SECRETARY

September 3, 1920.

Mr. C. E. Sholes,
38 Ninan Street,
East Orange, N. J.

*Copy Sent
Mr. Sholes
"Cable Record"*

Dear Mr. Sholes:

I brought the matter referred to in your letter of August 20th to the attention of Mr. Edison and Mr. Charles Edison, and wish to advise that they consider the arrangement made with you more than fair in view of the conditions and losses made during the past year.

Mr. Kellow has obtained the information which he desired from the copy of the Tidewater Equipment Company Stock Certificate No. 123, which you enclosed in your letter, and I take pleasure in returning same to you.

As you can well imagine we have, all of us, been extremely busy, but fortunately the cool weather during the latter part of August has been of great assistance, and things are "humming" as I have never known them to "hum" before in the Edison Industries.

We had the biggest month in August that we have ever had, and this is particularly gratifying to me in view of the fact that in case of a re-cession, I would rather re-act from a large volume than from a somewhat smaller volume as the amount remaining would be more satisfactory.

With kind personal regards, I remain

Yours very truly,

[Signature]

Vice President and
Financial Executive.

[ATTACHMENT]

*Not Handwritten
Indelible
M*

CHARLES E. SHOLEN
38 Adams St-
E. Orange

*Mr. Edison
Mr. Charles*

*Handy read
and initial before
returning.*

My dear Mr. Mambrot

Enclosed is a certificate of stock in the
Tidewater Equipment Co, which Mr. Kellow *Noted by
The Kellow
E.H.*
wants to see. Our patriarchal friend
Mr. Geo Drake Smith stung me for it when
I was verdant and by misrepresenting its
importance to the Battery Co.

Please put it with Mr Edison's stock, or
among the archives of the Battery Co whom
I found contracted to spend about \$5000- for
worthless models.

*See note
on last
page
M*

Please be good enough to take up that
other matter at once rather than later. I
am still confident that Mr Charles Edison
aims to be fair - and I would much
prefer to have the matter settled before I go
away and try to forget. Perhaps you
can also help by recalling that, like your
good self, I have not taken the vacation
to which employees are entitled and might
have fairly received two weeks more pay.

[ATTACHMENT]

than I did. Also I am quite sure that
I can always repay any considerations - at least
I have always heretofore been able to do so

Faithfully

Charles E. Stokes

Wednesday
Aug 11 1920

Mamert-

7/1/20

Mr. Edries

Mr. Charles

Think stock should be
sent back -

Think we should stand
fast on 4 months -

Mr. Stokes considers that he is worthy of further
consideration in the way of salary -

- ① Because he so understood when coming with us.
- ② " " gave up an established life by connection
to serve our interests.
- ③ Because he has sacrificed his home life.
- ④ " otherwise, he will actually leave by his year
long efforts to serve us.
- ⑤ Because this unfortunate experience will prove to be
a calamity to his life.
- ⑥ And lastly, because it is only fair.



AUG 12 1920

We offered ~~some~~ 4 months salary
& we will not pay more if considered
it more than fair in view of the losses
he has made by his gross incompetence

don't understand about this stock please explain

THOMAS A. EDISON, PERSONAL

Office of Secretary

September 4th, 1920

Mr. Thomas A. Edison:

Jim Monahan tells me he is about to start on an experiment under your instructions to cover reclaiming all types of Storage Batteries, involving the design of machinery, tools, etc., to disassemble returned batteries and reconstruct from old parts. I have given an order to him this morning to cover the work. Will you please OK this as my authority?

I suppose this will naturally be charged against Edison Storage Battery Company. Jim tells me that it is your idea later to purchase these old storage batteries from the Battery Company, disassemble and renew them and resell to the Battery Co. If experiments results successfully, I presume a factory to do this work would be a pretty fair sized one and probably not be run by you personally but rather would be turned over to some of your interests, probably the Storage Battery Company.

R. W. KELLOW,

Secretary

Shop Order C-800-X-55

NOT ISSUED
SAME AS C 300 X 215

C C to Mr. Ryder.

FUNCTION Storage Battery
FROM Vice President and Financial Executive
TO Mr. W.J. O'Dair, Engineering Assistant
to Mr. Thomas A. Edison
SUBJECT G-Type Cells

Dear Mr. O'Dair:

At a recent meeting at which were present:

Messrs. Charles Edison
Stephen B. Mamber
✓ W. D. Fagan
John Kelly
R. S. Burrows
G. J. Peck

it was decided that in view of certain technicalities which surround our G-Type Cells of the smaller sizes, that whenever possible, Mr. Kelly and staff would encourage the sale of A-Type Cells in lieu thereof.

Mr. Edison, in connection with this matter, has suggested that you look into the rating of the smaller sizes of G-Type Cells, for it may be that a re-rating of same will in a large measure eliminate the cause of some of the difficulties which we are now experiencing.

As I understand it, it is Mr. Edison's idea that someone has probably over-rated capacity, making everybody dissatisfied and causing us to lose money, I would suggest that you show him the real capacity tests, that is in sufficient number to serve as a proper advice for arriving at an opinion and give an actual rating in comparison with the rating that has been given, so that Mr. Edison may be in a position to give his advice on the subject.

FINANCIAL MEMORANDUM NO. 6917
DATE September 7, 1920.
EFFECTIVE Date of issue.

 $\approx 1.0035e^{-1}$

Charles - ~~soon~~ see me
about this, too long to explain
on paper —

-Dear Mr. Nicolai:

It is the intent of the Edison Organization that whenever there is sufficient work of any one kind to necessitate continuous time being applied thereto, that the people so rendering continuous service be carried by the division of the business requiring same.

I have in mind the fact that you may be rendering service of the nature referred to above to the Disc Re-Creation Division, which could be equally well supervised and handled entirely within the division.

This matter has been drawn to my attention by Mr. Edison, and I trust that if any economy can be derived along the above lines that you will co-operate with Mr. Pullis in working out same, in accordance with the suggestion made to him by Mr. Edison.

THOMAS A. EDISON, PERSONAL

Office of Secretary

Battery Storage

September 8th, 1920.

77
11/25
11/20
11/20
11/15

Mr. G. M. Ryder,
Laboratory Office Manager.

James Monahan has started, under Mr. Edison's direction, some work in connection with reclaiming all types of Storage Batteries involving design of machinery, tools, etc., to disassemble returned batteries and reconstruct from old parts.

Mr. Edison tells us this is the same experiment as Chemist Moore was working on and Mr. Yee is now working on it, Mr. Monahan to be considered a new man on the old job to do the mechanical work. Mr. Edison further states that the order is not to be charged to Storage Battery Company until he is ready to turn it over.

new 10.
C 71644

Mr. Joe Frank says that the order covering this work is C 300-2-215 "Recovering all Nickel Pocket material from old Storage Batteries" and has instructed Mr. Monahan accordingly.

NOTE

I have asked Mr. Monahan to let us know as soon as he begins to make models of machinery of other work of this nature so that we may keep strict account of it.

E. W. HELLON

Secretary

BATHING STORAGE

file
Fagan -

Here is a report recd from O'Dair -

Please return, I think we can
fix up the annealing problem fairly
easy - I think our capacity
is sufficient since we got out
of that infernal fool Contract.
What we need is a better disposition
of the heat in furnace -

I will continue investigating

noted
J. J. (1920)

Σ

[ENCLOSURE]

September 7, 1920.

From: J. C. O'Brien, Technical Assistant
To: F. Thomas A. Edison, President
Subject: Rolling Mills

On Friday, 9-4-'20, I visited the Rolling Mills of the American Tube & Stamping Co. at Bridgeport, Conn. They have 3 open hearth furnaces, a 24" blooming mill and 3 continuous hot rolling mills. Also 3 cold rolling plants, 2 having 12" rolls and 1 having 18" rolls. Their cold rolling mills are driven on common shafts which have five sets of rolls on one pair of shafts.

Their cold rolling mills operate at roll speeds from 45 to 75 R. P. M. when rolling steel from 10" to 5" wide with an average reduction of 50% from the hot rolled size to the final cold rolled size in 5 passes. Their finished cold rolled sizes of steel are principally above .080".

The rolls are cooled by running the bottom roll in a well containing cooling water and also by having a jet spray on the upper roll. See sketch attached.

I have consulted the Blake & Johnson Co. who built our Rolling Mills and they state that mills can be operated at higher speeds than we are at present using. They say that lower temperatures of cooling water and sufficient volume of water travelling through bearing housings should dissipate the additional heat generated. They also say that a jet spray directly on rolls will aid in keeping bearing and roll temperatures within safe operating limits. I have also consulted the Waterbury Barrel Foundry Co. and they have given me the specifications on rolling mills used by the Trumbull Steel Co. which is herewith attached. These speeds are generally above the speeds at which our mills operate.

I find that on all except 2 of our 8 - 9" mills the motors have 120 volts across the armature instead of the rated 240 volts. This was done to cut down the speed, but also results in reducing power about 1/2. The speeds of the various mills are given in attached table.

It seems that we can increase the speed of our mills on some of the passes, depending upon what effect such increase would have on the material rolled.

W. J. O'Dair.

WJO'D/JMA

SAF-2004-02

FUNCTION: Thomas A. Edison Industries.

FROM: Vice President and Financial Executive.

TO: Messrs. R. Maxwell, F.D. Fagan, P.H. Closs, L.H. McChesney, R.C. Durand,
F.L. Burnham, Jr. F.D. Miker.

SUBJECT: Consultation with Mr. Edison regarding Technique.

FINANCIAL MEMORANDUM NO. 3864
DATE: September 29, 1920
EFFECTIVE Date of issue

Previous to the war it was the custom in our Organization to keep Mr. Edison thoroughly advised of all matters of technique, but this practice was discontinued during the time that he was concentrating on war work. During his absence minor evils magnified themselves into serious consequences, so that there has been a re-adjustment period during which he has been concentrating primarily on certain important matters of technique.

Now that this readjustment period is drawing to a close, at Mr. Edison's request, you, Charles and myself should at all times keep him thoroughly advised on all matters of technique. That we have not completely done so for the past four years is in part excusable, but certainly no excuse can exist for not doing so hereafter.

This memorandum is merely in the nature of a confirmation of the discussions which we have had with one another along this general line.

Managers

BATTERY-
STORAGE
Wireless Cell
10.2.20

Mr. Kelland

Enclosed is directed
to do the following work to done

Especially to design
and storage battery cell
for wireless service

Will you please have a
shop order raised and
address rectified

Yours
J. H. Bair

FUNCTION: Edison Store, Battery Co. & Subsidiaries
 FROM: Arthur Hudd, Secretary
 TO: Charles Edison, Chairman Board of Directors
 SUBJECT: Annual Meeting

FINANCIAL MEMORANDUM No. 636

DATE: October 13, 1920

EFFECTIVE

Dear Mr. Edison:

In accordance with our by-laws the annual meeting of the stockholders, for the purpose of electing Directors receiving annual reports and for such other business as may come before the meeting, will be held-

Battery Company	Nov. 3, 1920
Supply Company	Nov. 10, 1920
Garage	Nov. 17, 1920

At the present time there is a vacancy in the Board of Directors of each of the corporations. The Directorate at present is

Battery Co.	Supply Co.	Garage
Thomas A. Edison	Thos. A. Edison	Thos. A. Edison
Charles Edison	Charles Edison	Charles Edison
S. B. Hambert	S. B. Hambert	S. B. Hambert
H. F. Miller	H. F. Miller	H. F. Miller
(Vacancy)	(Vacancy)	(Vacancy)
J. V. Miller		
T. I. Crane		

As explained to Mr. Hambert, in sending out the notices for the annual meeting it is desirable to state the number of Directors to be elected.

Should it be desired to change the number of Directors, this can be accomplished by amending the by-laws either at the stockholders meeting or at a Directors meeting held previous or subsequent to the annual meeting, previous being more desirable inasmuch as at the stockholders meeting a resolution is usually adopted ratifying, affirming and approving the acts of the Directors during the previous year.

Will you please discuss this matter with Mr. Hambert at your convenience?

-000-

TO: Edison Storage Battery Company

FROM: Arthur Mudd, Secretary

TO: F. D. Fagan, Vice President & Financial Executive

SUBJECT: Deferred Payment and Rental Plans

FINANCIAL MEMORANDUM NO. 8 661
DATE: October 22, 1920
EFFECTIVE:

Dear Mr. Fagan:

I quote below excerpts from minutes of meetings of Board of Directors concerning Deferred Payment and Rental Plans for sale of batteries, regarding which Mr. Mambert informs me he has already spoken to you.

July 3, 1919

The Vice President and General Sales Manager presented and recommended for adoption a proposition for the sale of Edison storage batteries under a deferred payment plan, a copy of which was ordered inserted in the minute book for the purpose of reference.

RESOLVED that the deferred payment plan for the sale of Edison storage batteries, presented at this meeting by Mr. G. E. Sholes Vice President and General Sales Manager, be and the same is hereby approved and adopted and that the Vice President and General Sales Manager be and he is hereby authorized to place the same in operation at once, provided, however, that for the present the total of the deferred payments thereunder shall be limited to \$250,000.00.

July 7, 1919

From - G. E. Sholes, V.P. & G.S.M.
To - Charles Edison, Chairman
Board of Directors.

To meet competition and the new renting plan offered by some lead battery makers and to help overcome the wide difference between their selling prices and our own, it is respectfully recommended

1. That our Selling Division be permitted to offer a Deferred Payment, or Installment, Plan under which Edison batteries may be purchased at only list prices therefor.
2. That the plan include a contract, a cash payment of 15% and 5 Acceptances for equal amounts at 4 - 6 - 12 - 16 - 20 months respectively with interest at 6% per annum.
3. That the plan be only offered to individuals or concerns who have good reputations or can furnish reasonable references for integrity and honest and honorable fulfillments of obligations.

4. That no written guarantees by this Company shall be furnished with installment agreements, but that we will feel morally bound to attend same as under written guarantees.

To help toward your consideration we attach a suggestion of forms which might possibly be used if approved by Legal and Treasurer's Department, and also mention that the plan need not include any unreasonable business risk; that the Acceptances with contracts could undoubtedly be discounted for part or their periods or used as collateral, if desired; and that it would perhaps be an especial advantage if we could offer this plan coincident with our new prices.

Respectfully submitted,

C. W. Sholes

October 2nd, 1919

DEFERRED PAYMENT PLAN SALES

In the matter of the Deferred Payment Plan adopted at a meeting of the Board held July 3, 1919, the Vice President and General Manager presented a recommendation from the Sales Committee to wit:

That manufacturers may use our Deferred Payment Plan to promote the sale of Edison storage batteries and receive on such sales a discount from list price of 15% on "A" type and 10% on "G" type batteries, but provided:

1. That this discount applies only to batteries sold by manufacturers for new vehicles.
2. That trade acceptances in payment shall cover list price with interest.
3. That trade acceptances shall be endorsed by manufacturer who sells vehicle.
4. That manufacturer shall give not less than 5% of the list price to the agent or distributor who makes the actual sale.

AND FURTHER, that when our Deferred Payment Plan is used in the sale of Edison batteries to replace lead, the policies covering discounts for the removal of lead batteries by Edison shall apply on all such sales provided, however, that the Deferred Payment Plan shall be used only when necessary.

October 9, 1919

In the matter of the use of the Deferred payment Plan in connection with the sales of batteries to manufacturers and to replace lead, the Vice President and General Manager stated that the Sales Committee are of the opinion that we cannot dictate to the manufacturers what they shall allow their agents or distributors and recommend that that portion of the resolution adopted at the meeting of the Board held October 2nd, which requires the manufacturer to give not less than 5% of the list price to the agent or distributor making the same, be rescinded.

RESOLVED that provision #4 in connection with the use of the Deferred Dividend Plan by manufacturers, adopted

ufacturers, adopted at meeting of the Board held Oct. 2, 1919, and reading as follows:

"That manufacturer shall give not less than 5% of the list price to the agent or distributor who makes the actual sale"

be and the same is hereby rescinded.

Dec. 26, 1919

DEFERRED PAYMENT PLAN

In the matter of the sale of Edison Storage batteries under a Deferred Payment Plan, approved at a meeting of the Board on July 3, 1919, which said plan was subsequently amended at a meeting of the Board on Oct. 2, 1919, to permit its use in connection with the sale of batteries to manufacturers, the General Manager presented and read a memorandum dated Dec. 17, 1919, embodying a recommendation that the Sales Department be permitted to use the Deferred Payment Plan, without any unreasonable restriction and within the \$250,000. limit previously prescribed, and stated that said proposition meets with the approval of the President.

RESOLVED that the Deferred Payment Plan authorized for the sale of Edison storage batteries to consumers and manufacturers, be and the same is hereby amended to permit its use without any unreasonable restriction, in the sales of Edison storage batteries to all classes of customers, provided, however, that the total of the deferred payments thereunder shall be limited to \$250,000.00.

June 17, 1920

RENTAL PLAN

The Vice President and General Manager presented communication from Sales Committee recommending that, in order to meet serious competition from rental plans in various cities, the Sales Department be authorized to inaugurate a rental plan in New York, Boston and Chicago, which plan shall apply only at list prices and shall require not less than 20% down and balance in forty-eight equal monthly installments, and provide that at the end of the rental period, when all rentals are fully paid, the battery shall become the property of the lessee; it being further understood that this plan shall be offered on new sales and replacements of lead batteries in street vehicles and not for any other application.

RESOLVED that the plan presented at this meeting for the renting of Edison storage batteries on a rental basis, be and the same is hereby approved and adopted, and that the General Manager be and he hereby is authorized to place the same in operation for one year, provided, however that the net invest-

- 4 -

Mont represented by batteries in the
hands of customers shall not at any
time exceed \$250,000.

-000-

Mug ✓

Butler, Stange

October 22, 1920.

Mr. H. A. H. Andreassen,
Plating Department,
Disc Re-Creation Div.,
Orange, N.J.

Dear Sir:-

You have used such poor judgment in trying to hire one of my inspectors away and offering higher salary, that in my opinion you will not be able in the future to manage the plant satisfactory to me.

Therefore, I accept your resignation to take place at once, but I will pay your salary for November.

Yours truly,

Enclosure - Check.

[ATTACHMENT]

Andreasson -

You have used such poor judgement in trying to hire one of my inspectors away & offering higher salary that in my opinion you will not be able in the future to manage the plant satisfactory to me. Therefore I accept your resignation to take place at once, but I will pay your salary for November

Tracy

New York University
DEPARTMENT OF MECHANICAL ENGINEERING

**BATTERY
STORAGE**

COLLINS P. BLISS, Professor of Mechanical Engineering
CHAS. E. HOUGHTON, Professor of Mechanics and Thermodynamics
WM. R. BRYAN, Associate Professor of Engineering Drawing
HATEN C. TILER, Assistant Professor of Mechanical Engineering
HERBIE DUNHAM, Assistant Professor of Engineering Drawing
WM. K. SCHUYLER, Superintendent of Shops

UNIVERSITY HEIGHTS
NEW YORK CITY

October 25, 1926

*Mr. Muehlbauer -
How does Mr. Edison
handle these?*

Mr. Charles Poyer,
Edison Industries,
Orange, New Jersey.

My dear Mr. Poyer:

Mr. Outwater, who has been one of our students, said that he had spoken to you about the splendid help we have been receiving from the large industries all over the country regarding donations in our new research laboratory.

I might say in this connection that one half of the bequest of Mrs. Russell Sage to the University has been given to our School of Engineering for the purpose of erecting the first building we have ever had in our new engineering group. This was done with the understanding that we would interest the large industries of the country in helping us out with donations of equipment. We have had a splendid response and have, up to date, secured equipment to the value of very nearly two Hundred thousand Dollars. There is a small item of equipment which your interest could give us and which we would greatly appreciate, namely:

24 storage cells type A4 or A4H - 150 Amp-hours with connectors.

It would give me great pleasure to drop out and see you at any time if you feel that this request would be favorably considered, which I certainly trust it may..

Believe me,

Very cordially yours,

CPB/DA

Collins P. Bliss

*Chas. Poyer -
Pls note & arrange things
with them - W.*

*Charles - I sometimes
feel that this pays us
in the long run what
we should do it -
Think what it is going
to cost as much trouble
that if they get
what they want
won't come*

*I think so in many cases but not all -
In this case I think it would do us good but
believe they would be content with smaller offer
Shall I see them? ? YES - W*

FUNCTION ☒ Storage Matter

FINANCIAL MEMORANDUM NO. 7074

DATE October 29, 1920.

OBJECTIVE Date of Issue.

FROM Vice President and Financial Executive.

TO ☒ Mr. Frank D. Fagan, Vice President & General Manager for Mr. J. V. Miller, Vice President & General Manager Edison Chemical Works.

SUBJECT ☒ Nickel.

Dear Mr. Fagan:

Mr. Edison, after his recent trip of inspection through the Chemical Works, feels that we have fifty (50) tons of nickel tied up in by-products, all of which could easily be used.

If there is anything that you can do to assist Mr. Edison in the recovery of these by-products I would personally appreciate the conversion of the money represented therein into actual working capital, which we so much need.

Mr. Mudd:

I am sending you copy of this memorandum with the understanding that you will advise me of any progress or lack of progress being made along this line. Under no circumstances, close this memorandum in your follow-up files until the matter has been satisfactorily handled, explained or disposed of and I authorize you in writing to cancel same.

November 25, 1920.

Mr. Edison:

You wanted to check up on the work for repairs in the Plating Dept. two weeks back.

Nov. 9th, Folsom reported	42 items -	November 23d	Folsom	39 items
Nov. 9th, Ordway	" 22 "	" "	Ordway	30 "
Nov. 10th Folsom	" 42 "	" "	24th Folsom	34 "
Nov. 10th Ordway	" 26 "	" "	24th Field	11 "
Nov. 11th Folsom	" 44 "	" "	25th Folsom	46
" 11th Ordway	" 29 "	" "	Day and Night	")

* Note: While 39 items may be reported these are of minor consequence, mostly loose belts - no serious repairs.

I have been wanting to talk to you for the last ten days about the Plating Dept. inspectors. Folsom feels that the houses are now in such that he has not enough to do. This morning he made three trips through all the houses and says there was very little for attention. He has felt the same way about the Night inspection.

Now that Ordway is going, think Folsom can run both the Day and Night shift. I have spoken to him and he says nothing would suit him better. He says he would come in about 6 or 7 hours during the day, and put in 4 hours at night, sometimes getting up about 3 or 4 o'clock in the morning, when the men least expect him. He is very conscientious and appreciates what it means to be an "Inspector" for you.

I don't know what you intend to do, but thought to write the above at any rate.

Folsom's salary at present is \$35 with \$5.83 when working Sundays, making his net salary for 7 days \$40.83.

Tell Folsom if he can get along with the job - to go ahead + I will raise his basis to 40 per week + same basis for Sunday - Have. Card made out for mets sign

Sent new card to Mr. Schultz. Mean. den. up to H.A.

[ATTACHMENT]

Mr. Edison -

On the basis of
\$40⁰⁰ a week for Folsom,
he would make, working
Sunday \$46.66²/₃. As
he would come in again Sunday
night, his net pay
would be \$53.33¹/₃ - \$58.33
Old way - 52 night - \$75.83

Meads Craft

Discharge Kennedy

Mr Tolson

Edison

On the night Nov. 25. Inspector Kennedy came in here this morning at 3:15 a.m. and went upstairs. At 3:55 a.m. I went up to see what he was doing. He told me he could do as he damned pleased and tried to start a fight. I find this man sleeping nearly every night he is on duty in the garage. This is not right and what you would see if something could be done about it.

Joe Phillips

Night Watchman

Mr. Meadscraft -

Above for your information. Was given to me Saturday night.

Falsam

Mr Edison said to
to pay him to
the end of the
week. WMM
11/30/00

Challenged File —
11-27-20.

Mr. Meadowcroft. —

Replying to your question about Mr. Kennedy, we say that I base my opinion of his work on the following:

1. His being mixed up in the rocks in the garage the evening of the 19th when he was not on duty.
2. Three days later - Tuesday 23rd, I came in at 8:44 a.m. and found Mr. Kennedy leaning back in chair against wall in corner of garage, apparently asleep. On this night he did not come in to work until after 2 a.m. as shown by his card. When I came in he remarked that he had not been to bed for over 24 hrs.
3. His apparent lack of interest in his work at all times.

Falsom

Nov. 30 - 1920.

Mr. Edison: -

Please accept
my resignation to take
effect immediately.

C. F. Kennedy

3 Copies

Murd
file

December 16, 1920

FROM: Frank D. Fagan, Vice Pres. & Gen. Mgr.
TO: Messrs. Charles Edison and S.S. Washburn.
SUBJECT: Replacement of Edison Storage Batteries.

There seems to have been no definite standard as to the basis on which we will make replacements under our guarantees. The following is an outline of a new policy proposed by a committee consisting of the managers of the various divisions of the Sales Department, and on which I am asking your approval and comments:-

- (a) Replacements made to customers on batteries should be based upon the particular guarantee which was signed by the customer at the time the purchase was made.
- (b) Customers who did not sign any guarantee agreement at the time of purchase and who may ask for replacement, shall have their replacement made on the basis of the particular guarantee which was in effect at the time the purchase was made.
- (c) Replacements on all batteries purchased prior to February 7th, 1917, will be made according to present ten-year scale, basing allowance on price-list in effect at date of purchase of original battery to apply against list price in effect at date of replacement.
- (d) On renewal of replacement batteries not covered by ten-year guarantees, the price should be list price in effect at date of replacement, less a discount of 25% on A and B types and 20% on C types, and the return of the old battery.

You will note from the last paragraph that we propose a definite price for replacement of batteries which have already been renewed, known as renewal of renewal. In the past, it has been the policy to apply the guarantee to these batteries, which means that we have been giving too much to our customers. The result is that our replacement "profits" have been red.

Your approval on the above is requested as soon as possible.

APPROVED *Arthur Murd*

Frank D. Fagan
Frank D. Fagan

APPROVED *Charles B. Washburn*

APPROVED *E*

APPROVED *JAC*

Rhous Town

That there is a good place
at Singas near bridge crossing
Dennis River on Pompton road
thick brick walls, steel
trussed roof - about 35 ft
wide, 100 to 115 ft long
in good condition, ~~one~~
1 story - Owned by
Public Service Co. Set up
for sale. Think they will
rent, its rented now but
think man only rents by
month. Truck in front of
door, 20 mechanics from
orange - 2

20 x 28"

Box 225 pieces

5.84 - 100 lbs - Annual cost

Meadecraft May R & Co. Inc.
38 gauge U.S.
00625

Find out the thinnest
Black plate (Iron) Rolled
for tinning - I do not
want the tinned plates
but plates before
tinning - get price
through U.S. Steel
Sheet & Tin Plate Co. 8990 East
1st Ave.
largest These black
plates are quoted daily
in Commercial & Ref. 9102
no sizes

Black Iron Plate - annealed;
Cold rolled and re-annealed
for Tinning.

Thinnest #38 gauge U.S. .00625

Size 20 x 28"

Price today (if they had any)

would be \$5.84 per 100-lbs

Can load lots.

Will not have any more
this year.

#37 - .0066

36 - .007

35 - .0078

34 - .0085

NS. 25 .020 - 20 x 28"

Tin plate black

1 Box 56 plates in stock here

Dickenson & Van Dusen

24 - .025 20 x 28 "

~~39 Bundles~~

63 Boxes of 56 sheets

\$5.84 per 100

Bruce & Cook - 6270 John

Merchants & Evans 4390 Reuben

Republic Metal Ware Co Brooklyn
Sims 5406

Bruce & Cook

New York

Black PC

34^{.0085} 20 x 28 - 15 boxes
150 sheets

36^{.007} 20 x 28 - 15.25 boxes
180 sheets

Jagers Iron

Charles

3rd Request —

Last night all lights went out
for 20 minutes — Public Service I
understand —

I have twice before requested that
2 lights be put on each
floor of all buildings with
small wire separately pkt.
so each bldg could turn it
on in emergency — using old
set of 6 Bat Cells which will
last for years, The whole
dis. plant would only need
16 light or 1 Horse Power
+ so on — nothing
appears to have been

2

done about this allhance
2 Requests are over
year old — Cost is

practically nothing

If this is to be done
let person who will
do it see me —



Mr. Edison:

I received from Butler
the Geological Survey
Bulletin on Mineral Springs.

I see that what you
say is true. There is a trace
of lithia in many springs.
The New Britain Spring at
Saratoga shows as high as
9.83 grains lithium bicarbonate
to the gallon.

Meadowcroft

Mr. Edison:

Geo. Drake Smith
of Storage Battery Co.,
recently saw W.H. Atkins
and E.W. Mansfield of
Boston Edison Co.

They had heard of
your photograph record,
and wished very much to
have one. They did not
seem to know they were for
sale. Don't you want to
send one to each?

Drake Smith says he
thinks it would help along.
Meadowcroft

Krieger
Mr Edison told me he
had tuberculosis

Krieger was in here
today to take away his trunk
and personal effects.

He has a very bad
cough and has been spitting
blood, Lieb had the Company
doctor see him and make an
examination. The doctor told
him he ought to go away
and recommended that he go
in the pines at Asheville, N. C.,
and he would probably be
all right in a month or two.

...

2

The New York Edison Co. will
continue his salary. I told
Krieger that I guessed you
would probably have to drop
him from your pay roll as
the Government work is
nearly ended. He said he
had rather expected that, I
suppose that is OK.

Poor old Krieger, I
am sadly afraid his lungs
are affected!

McDonough

**Edison Storage Battery Company Records
Correspondence (1921-1931)**

This folder contains documents, primarily correspondence, relating to the business of ESBCo. The documents cover the period from 1921 until after Edison's death, but the bulk of the material is from 1921-1924. Included are letters pertaining to the sale of Edison storage batteries, the real estate and capital of the company, and the processes of production, accountancy, and administration. Correspondents include Edison, Charles Edison, H. A. Altengarten, Frank D. Fagan, Stephen B. Mambert, Arthur Mudd, C. E. Sholes, and other ESBCo employees. Some of the items relate to sales agents Maurice E. Fox and John F. Monnot, to the Edison Storage Battery Supply Co.'s contract with the American Railway Express Co., to royalties collected from the Deutsche Edison-Accumulatoren Co., and to service guarantees granted to ESBCo customers. There are also memoranda concerning employees under Edison's direction and relations between ESBCo and the phonograph and primary battery divisions of Thomas A. Edison, Inc. Related material can be found in the Plant Operations and Research Records.

Less than 10 percent of the documents have been selected. The items not selected include routine exchanges dealing with the supply of equipment and material for ESBCo and with matters of daily administration and accountancy. Also not selected are letters of transmittal and acknowledgment and items that duplicate information in selected material.

Battery, Strong, 18 / 21

Mr. Edison - Attenquaten \$40-Neill
\$30-Caldwell
What is Neill's Salary

mark out his return
Altho I appreciate fully the present
business conditions, I feel that in justice to
myself I should remind you of my personal affairs

When I first came here (five months ago)
I accepted a rate much lower than paid to others
of similar training & experience with the
understanding that it was purely temporary

I have not mentioned salary, since as I have
looked rather toward the job than the money, but
in view of the fact that I have not only to support
myself but to contribute toward the support of my mother
you can appreciate that I can hardly be silent
on \$30.00 per week.

If I did not feel that this salary was much
lower than normal-reduced rates considered - I would
not bother you at this time, but as it is I feel
justified in asking for consideration

Respectfully
R.H. Caldwell

4-7-21-21-21

FUNCTION

Export Division of E. S. B. Co.

FINANCIAL MEMORANDUM NO. B 57

DATE February 8, 1921.

OBJECTIVE

FROM

Fred C. Erwin, Ass't Secretary

TO

Stephen B. Lambert, Vice President and Financial Executive.

SUBJECT

Sale of "Export Division to Thomas A. Edison, Inc.

At a meeting of the Board of Directors of Edison Storage Battery Company, held Tuesday, February 8, 1921, at the principal office of the Corporation, West Orange, N. J., the following resolution was adopted:

RESOLVED, that the proper officers of this Corporation be and they hereby are authorized to sell that portion of its business known as "Export Division" to Thomas A. Edison, Incorporated, at its net worth as shown by the books of account at the close of business on the evening of December 31, 1920, in accordance with the following statement of assets and liabilities.

<u>Assets:</u>	
Cash On Hand	\$ 300.00
Accts Receivable-Customers	78,940.21
Res. for Doubtful Accts \$1,199.54	
Less Accts written off	541.77
Due from T. A. Edison, Personal	6,047.40
Finished Merchandise	18,608.25
Consignments at cost	795.08
<u>Liabilities:</u>	
Accts Payable-Outside Vendors	\$ 319.02
Accts Rec. Credits-Customers	8,406.48
Thomas A. Edison, Inc.	1,249.06
Edison Storage Battery Company	54,756.86
<u>Net Total</u>	<u>44,728.91</u>
	<u>\$78,940.21</u>

I hereby certify that the foregoing is a full, true and correct copy of the resolution as it appears in the Minute Book of the Export Division.

Fred C. Erwin
Assistant Secretary.



COPIES TO

MR. STEPHEN B. LAMBERT

Messrs. F.D. Fagan, H.F. Miller, H.C. Stevens, L.S. Hatfield. 833

147500-0-01

FUNCTION Storage Batt /

FROM Stephen S. Hammett

TO Executive Committee

FINANCIAL MEMORANDUM NO. 1217

DATE March 24, 1921

EFFECTIVE Date of Issue

SUBJECT Our relation of Direct Costs and Fixed Burden to our Selling & Credit Policies.

--- Thoughts ---

In our business, an A-4 Cell which is listed at \$20. is usually sold at 25% off of list, that is - at \$15.00. Generally speaking, at the present time, we can replace any Cell which we ship from stock for \$7.50, made up of approximately -

\$4.00 which we would have to pay out for direct purchase of material;
 1.50 which we would have to pay out for indirect labor;
 2.00 for direct expense;

In other words, it may be given that if we obtain \$15.00 for an A-4 Cell, and our direct cost of assembling same is \$7.50, that for every A-4 Cell which we produce for a direct cost of \$7.50 and ship at a billing price of \$15.00, we earn \$7.50 applicable to the meeting of our fixed burden.

Now, what is our fixed burden? In round figures, our fixed burden is about \$7,500. per day. So we see that on this basis, it is necessary for us to sell a thousand cells a day to earn enough gross margin between our billing price and direct costs to compensate us for our fixed burden.

There is another way of expressing this. That is, for every cell less than one thousand cells a day that we ship, we lose \$7.50; for every cell more than a thousand cells a day, we gain \$7.50.

I hope that no member of the Executive Committee will try to tie me down too closely to these figures, because they are more or less taken from the air as reduction in costs of materials, direct labor and direct expense, as well as an curtailment of our fixed burdens, are in process of taking place, and, the above figures are obtained by sort of jumping out ahead of the actual closing of our books - more to express a principle than to get right down to the absolute penny or the absolute dollar.

How does this affect our merchandising policy? Just at the present time, it probably does not affect it one way or another. In other words, if we could sell all of our batteries at \$7.50 instead of

\$15.00, it probably would not result in the sale of one additional battery, but it does mean this: That just as long as we fail to sell less than a thousand cells a day on our present direct cost and fixed burden basis, we are in a bad way, and that just as soon as we can get to the point where we are selling more than a thousand cells a day on the present direct cost and fixed burden basis, we will be improving our cash position. In other words, a thousand cells a day is absolutely the minimum bogie which we dare work to on our present direct cost and fixed burden basis, and, if after the passing of such time as in the opinion of the Executive Committee may be reasonable, we do not succeed in arriving at a business of a thousand cells a day, it is going to be necessary to absolutely cut even what we now consider to be essentials, out of our daily fixed burden.

— 33 —

How does this affect our attitude toward the prospective customer who believes in Edison Batteries, who wishes to buy Edison Batteries, but is short of cash, and because of the fact that he is short of cash, is inclined to buy our competitors' batteries costing only one-half as much as our own, although he realizes that the purchase of our battery, will prove more economical in the long run.

Obviously, if we obtain from such a man a cash payment of \$7.50, we are better off than if we lose the sale, even though at the particular time he makes the purchase, we have received no payment from him applicable to our fixed burden. After we have obtained the advantage of a wider distribution of our product, whatever payments we are successful in obtaining on the balance, whether over a short or long period of time, will immediately become of assistance to us in meeting our fixed burden, as such payments are made by this customer from time to time.

Wherefore, as the demand for storage battery equipment gradually returns, I want to be very certain that the business is not permitted to slip from our hands because of the large down payment that is double the amount required by our competitors, which we have been imposing during the months when the demand for our product exceeded our capacity to produce.

Everything which I have said during the months when we were unable to produce cells to meet the demand of our customers who were willing to pay cash, is now null and void.

We are in a different phase of the economic cycle and our financial policy is absolutely reversed in connection with same. I fear in mind that I am not in any way undertaking to reverse any of the Selling Department's sales policies, but I immediately wish to make certain that possible business is not lost or sacrificed because of anything which I have said during the preceding phase of the economic cycle, and that it is understood that I want all cases considered from the above angle. I would like to request that until such time as I become satisfied that my thoughts along the above line are thoroughly understood, that all questions of long time payment be brought to my personal attention, as I do not consider it a function of the Credit Department to make any exceptions to our regular terms of payment, or to apply a policy such as I have outlined above.

I am fully aware of the dangers of this policy and if it were not for the fact that I have confidence in Messrs. Fagen and Blair and the selling organization which they are building, I would never dare to lay myself open to the risks of entering upon this policy. It is because of this confidence that I am willing so to do, but at the same time, I wish to know every move that is made in this dangerous game.

In plain English: We have a product which must be merchandised. When we, the Edison organization, go into the market to buy equipment, we buy on just as long terms as we can secure, and we cannot expect to secure the maximum volume of equipment business unless we do exactly what every other concern in the equipment business has been doing, is doing, and always will do, namely - display a willingness to go half way toward meeting the customer's financial problem at the time he displays a willingness to install what is bound to prove to be the best in the long run.

Obviously the grant once as possible must be exercised in the application of this policy. It would be folly to issue a General Bulletin dealing with so confidential a subject, and, the control of our sales organization must be sufficiently direct so that this policy can be applied with intelligence from headquarters and not generally mis-applied by the rank and file of the organization.

I believe that the ultimate success of this Storage Battery business lies not in lowering the price but rather in merchandising our product on a high-priced basis along the above lines in such way as to build up the largest possible volume of business. In this manner do I believe that we can cash in on the fact that our battery is the best in the long run without unduly burdening the customer with a first cost far above his financial capacity.

I consider this memorandum highly confidential, only for the knowledge of the Executive Committee. If there is any phase of this matter which does not meet with the unanimous approval of the Executive Committee, I would like to have it settled as soon as possible, because I am already working along this line in a few isolated cases and do not wish to extend this policy if there is any question as to its efficacy.

7/15/18

7/1

April 8, 1921

Mr. Edison:-

Have authorized Monahan and Smith to go ahead with tools for Audion Cell. This cell looks good to me. On account of Government red tape and requirements, we cannot until further approval from the Government ship the new cell, as its dimensions are different than the one they have approved. Am taking up with the Government today the question of supplying this new cell and hope to get their approval. They may insist upon a test which will take two or three months. In the meantime, we will go ahead and put it on the market to sell to amateur radio operators and others, as we do not need this Government order before we start manufacturing for regular sale.

We are under contract to supply the Government with a cell which meets with their approval. Otherwise, I am not much concerned about the Government business on this cell.

Frank D. Fagan

C.C. to Mr. Mambert

Alten Garten
Letter to

April 26, 1921.

Mr. Edison:

Bay View Edison Shop

My resignation is yours for the asking, of course, but I want you to know these facts.

I have never been any good at tricky diplomacy. My policy has always been to think straight, work hard, and speak the truth.

Whoever said that I was blowing about my raise is a damn liar.

The only thing resembling blowing which I did was to tell a very few of my personal friends that I had received a raise and that I did not think that I deserved it. If that constitutes blowing, then I stand convicted.

Not being a diplomat, I did not think it necessary to keep such a thing secret from personal friends. It was a surprise to me the way the news spread.

The history of the whole mess is as follows:

Monday afternoon I asked Mr. Altengarten whether certain ideas I had been working on should be submitted to you or to Mr. Hemphill. Within half an hour Mr. Hemphill had heard about it and phoned me that I was out of his department.

When asked for an explanation, Mr. Hemphill said that he didn't want Altengarten sticking his nose in the production department and that he didn't want anybody in the department going to you with any suggestions. He apparently thought that I was trying to put something over on him. In this he jumped at a wrong conclusion.

Since when has it become a crime for an inspector to think of submitting a memorandum to you?

I have been told that when Mr. Hemphill heard of my raise he went up in the air and practically said that he was going to get me if he could. Apparently he has succeeded.

As to men being dissatisfied, I am sure that letting a deal like this be put over will do more to lower the morale of the inspectors than any indiscreet talk of mine.

I may have been indiscreet but I'll be damned if I did any blowing. Ask any of the inspectors to whom I mentioned my raise.

I hope I have convinced you that I was doing my best to play the game square. If so, and if you think my brains are worth something, is it fair to let me out because of a silly mess like this?

Light it be possible to straighten matters out by shifting me to the sales department? I know more about advertising than manufacturing anyway.

Respectfully,

A.H. Townsend

June 10, 1921

Mr. Thomas A. Edison:-

I am attaching a few reprints of newspaper clippings from Canada. These cover a story of a trial trip of a battery car, the test being run under the supervision of the Railway Storage Battery Car Company on the Canadian National Railways tracks. Publicity was given to this test throughout Canada.

Fatha Weekly News and another News Weekly have distributed moving pictures of this trial to over four hundred theatres in Canada. We will get a copy of this film and show it to you next week. It takes about three minutes to run.

We are co-operating with the Railway Storage Battery Car Company in every way possible to develop this business, as it is purely Edison and each order is a big installation. The list price for one car equipment is \$14,000. As far as I can see, this business has been neglected in the past.

✓ Frank D. Fagan

CC to Messrs. Chas. Edison
and Manshart



1. ISON STORAGE BATTERY COM. NY

ORANGE, N. J.

June 28, 1921.

PersonalPersonally addressed to Department heads at Orange and Silver Lake.

You have been advised of the temporary reduction in salaries of one-half day, weekly. I wish to take this opportunity of expressing to you my personal appreciation of the spirit in which you have received this reduction.

There never has been a time in the history of the country when alone co-operation and concerted action on the part of every man was more necessary to bring about a better condition than at present. Due to the unsettled conditions in foreign countries there is little or no export business, and this has a direct reflection on the business of this country. In your connection with other people, I would like to suggest that you talk optimism. To best give the very best service possible on orders from our customers, and the Sales Department will concentrate on the securing of all possible available new business.

It is hoped that the present situation will improve within a short time, and I trust that you will use your best efforts in helping us wherever you can to bring about this improvement.

Yours very truly,

Frank D. Pagan.

Copies to Messrs. Charles Edison and S.B. Lambert.



McEdison
For your information
Messrs. T. 6/28

Allen Garten - Will be at Lab
on 9th I want Bradshaw 1921
Mr. Edison:- put him on list - Σ
On ~~our~~ ^{our} re-organization.
plan am going to try and handle
both Baines (Clipping School) and Bradshaw
(Prod. School) work, realize it is a big
undertaking, but will do my best
and if I get in wrong can get
one back.

You can therefore have
Bradshaw.

Will release him here
July 8th, so you can have him
to start on July 11th.

Lamb.

7/13/21

Mr. Edison - Allenquisten 20 OK

+ see he gets money - say cant promise
job when he gets back his personality
wish to make my present
connection with T. A. Edison and, effective
to Los Angeles
Saturday July 16. An opportunity has
just then offered me to work my job on
a three month trip to Europe on an old tanker,
sailing from New York next Sunday or Monday.
I am now anxious to take advantage of this
opportunity, feeling that my departure should
have no great inconvenience to the company as
my present work is practically only a duplication
of Mr. Mull's.

If permission is granted me to leave
Saturday I would like authority to collect
wages due me at that time.

I would also like an expression of
opinion as to the possibility of my being
re-employed on my return to this country.

E. Nagase

July 27, 1921.
Mr. Edison - ~~This is one of the~~ ~~troubles - it is a~~ ~~man~~
~~I have an opportunity to get~~ ~~back into the~~ ~~Foreign Trade line by going~~
~~into the Latin American Division of the~~ ~~Bureau of Foreign & Domestic Commerce,~~ ~~in Washington,~~
and so I am leaving your employ.

I am sorry that you are not here so that I could say good bye to you personally. I have learned a good deal about human nature since working here and I believe that although it is a far cry from testing records for Wallenstein's department to writing reports on the demand for chewing gum in the Andes near the base I have profited by my experience under your direction.

Ever since I was 13 years old I have been deeply interested, almost to the exclusion of everything else, in Latin American affairs. I believe that you will appreciate my interest in one particular line of work and my desire to stick to it.

With best wishes for your personal
health and success and with thanks
for your having taught me a few
things,

I am

Yours Very Sincerely
Ralph C. Hounshury

BATTERY-
STORAGE

August 9th, 1921.

Mr. Edison:

Would it not be a good plan to instruct heads of departments to whom Inspectors' reports are sent to come back to me on items calling for attention?

Although this would increase our work here considerably, both Mr. Starrett and myself feel that this system would result in more attention being paid to these items, and result in a considerable saving of money and time. At present many of these items seem to be lost sight of, and finally forgotten. They should not have to wait until the inspector reports them several times.

H. ALTINGER

KAG

These items will not be lost if you do as I asked you yesterday to notify all inspectors to keep repeating the defective numbers them & put in each days report. This will get on the nerves of person responsible & also keep us posted. E

I will see him -
S

E.S.R.
Aug. 11/76
6.30 P.m.
(4-12 Midnight Shift)

Mr. H.A. Altengarten -

Dear Sir,

The writer wants an interview with you tomorrow at 2:30 P.m. (Aug 12th).

Mr. Egerton has notified the writer verbally, that its near time for Frank Powers to "git".

Mr. Egerton and writer hasn't been pulling together, as well as they should. He states his confidence in F.P. is negative, so there you are.

The writer wants to remain with T.A.E. in some capacity or other.

A good frank talk may clarify this situation.

Trusting we can find a way out which will not cost the writer his job.

Very Truly

Frank Powers

Sept 7, 1921.

Mr Edison:-

Since I came to work for you last February I have had five or six assignments, all of which I have carried out to the best of my ability.

Yesterday Mr. Altengarten brought me word that I was to replace Mr. Hopkins as Ponder Blank Inspector. I have made several trips of inspection with the latter thru the Ponder Blank, and am convinced that it will be physically impossible for me to do this work, as I am a sufferer from hay fever and find the dust of the blanks very irritating.

I am accordingly obliged to ask you to assign me to some other work, and trust you will be able to do this without serious inconvenience.

Put in EPW.

9/8/21

Hand

Sept. 14, 1921.

Mr. Edison:

As there seems to be no opening for me in the immediate future with this company I have decided to resign and will probably go to a university for advanced study this fall.

This resignation is effective on Saturday, September 17th.

Will you kindly give the necessary instructions so that I can receive my pay in full on Saturday.

P.R. Smith
P.R. Smith

Sent Return to Personnel 9/14/21
HAG

Smith: It is usual with me that when a man wants to leave he gives a weeks notice to give me a chance to fill his place. - Can you find a fellow a few days & break another man in
E

Box 100
9/15/21

September 20, 1921.

Mr. Pagan,-

Agreement dated July 1, 1920

I have gone over the contracts with the American Railway Express Co. handed to me by Mr. Veale and find the situation to be as follows:

On April 17, 1917 The Edison Storage Battery Supply Co. wrote to the American Express, offering to supply batteries at certain prices. This offer was accepted April 25, 1917. After five years, replacement allowances were to be as follows:

A's	replaced by A's	50%
A's	" " G's	40%
G's	" " G's	40%

There was a special arrangement as to batteries requiring replacement during the five-year period. This contract was cancelled to take effect July 1, 1918. These replacement allowances would apply to all batteries supplied under this agreement.

By correspondence extending from Aug. 6 to Aug. 15, 1918 an agreement as to prices, etc. was then made between Edison Storage Battery Co. and American Railway Express Co. Under this agreement the discounts were to be 30% on A and 25% on G type cells. Replacement allowances were to be according to the 10 year schedule contained in our printed guaranty, ranging from 100% to 30%. This arrangement, with an increase in list prices on August 1, 1919, continued in effect until modified by Mr. John Kelly's letters of Sept. 6th and 11th. The effect of these letters was to make the replacement allowances for the first three years, or for the first 2-3/4 years, according to the printed guaranty in effect.

at the time of shipment, and 50% thereafter. I interpret the modification to apply to batteries sold from and after Sept. 6th, 1919, because of the first sentence of the letter of Sept. 6th which reads:-

"We desire to confirm arrangement under which your Company will purchase Edison batteries from us" etc.

There was no acknowledgment of Kelly's letters of Sept. 6th and 11th, but orders were subsequently placed, which probably constitutes an acceptance. There may be some question as to Kelly's authority to modify the contract in this manner, but I believe the General Sales Manager would be presumed to have this authority, although it may be fairly argued that he did not have authority to obligate the Company for any period in excess of 10 years, as that is the maximum period of any of our authorized guaranties. Furthermore, Kelly signed the later contract under which we are now operating.

On July 1, 1920 a new agreement was made. While this agreement purported to supersede and annul prior agreements, there are references in it to replacements made or to be made under our service guaranty, and from this it is to be inferred that it was not intended to terminate our obligation as to replacements. *with respect to batteries previously furnished* Furthermore, I understand replacement allowances have actually been made since July 1, 1920.

I doubt whether we could make out much of a case in any attempt to free ourselves from the obligations as to replacement allowances as set forth in the various contracts. However, the situation is complicated to such an

-3-

extent as to render it highly desirable, if possible,
to come to some definite agreement with the Express Co. as
to the rights of the parties.

Henry Lanahan

HL

HL-K

[ATTACHMENT]

Edison Storage Battery Co.

Orders Received --- Daily Average

July 5, 1921

<u>Name of Customer</u>		<u>Quantity</u>	<u>Type</u>	<u>A-4</u> <u>Equiv.</u>	<u>List</u>	<u>Discount</u>	<u>Net</u>
International Time Rec Co., Endicott, NY		10	BLH	1.25	65.00		65.00
American Ray Exp. NY	(A)	60	AS	120.	2280.00	56 P9	1020.00
Louisville & Nashville, RR., Louisville, KY	(B)	25	ASH	50.	962.50	22 P9	745.94
Powley & Townsley, Toronto, Can		4	G9	64	142.00	15-5 P9	114.56
"		25	ASH	50.	962.50	20-5 P9	781.50
Nat'l Malleable Casting Co. St. Louis, Mo		1	AS	2.	38.00	0 P9	38.00
Mancha S. S. Loco Co. St. Louis, Mo		84	A10	210.	4074.00	25 P9	3056.50
Kansas City Power & Lgt Co., Kansas City, (XB)		64	AS	128.	2432.00	35 P9	1545.56
Michigan Transit Co., Chicago, Ill	(X)	94	B4H	47.	1151.50	0 P9	1151.50
Joe. M. Brown Co., Chicago, Ill.	(X)	1	AS	1.5	22.50	15 P9	22.07
		368		615.75	12137.00		8477.73

Approximate daily average A4 - 459
" " 6 6612.

- (A) Replacement of 60 G11 cells
(B) " Edison
(X) Shipped from Chicago Stock

Mr. Edison - Fagan away today. His Office says American Ray Exp. contracts runs to July 1st and thereafter, until cancelled upon 30 days written notice. It has not yet been cancelled.

7/7/21

ALBEN F. FAN
100

Charles E
Why cant it be cancelled
we make a terrible
loss every one we
sells

Fagan
Is it correct that our
Contract Expires with
Amount Exp in July
Edison

[ATTACHMENT]

Edison Storage Battery Co.

Orders Received - Daily Average

September 1st, 1921

Return to Allengarten

Name of Customer

		Quantity	Type	A-4 Equip.	List	Discount	Net
G. & S. Q. RR., Chicago, Ill.	(X) (A)	42	A6	65.	1239.00	25 P9	929.25
Central Scientific Co. "	(X)	12	B2	5.	102.00	20 P9	81.60
W. M. Welch Mfg Co. "	(X)	1	B2	.25	8.50	20 P9	6.80
Miami Univ., Oxford, Ohio	(X)	7	B2	1.75	59.00	10 P9	53.55
Smith-McCorker Mfg Co. NY		3	A4H	3.	61.50	25 P9	46.13
C. V. Hindle, Ossining, NY		12	B2	3.	102.00	20 P9	81.60
Safety Car Ht & Lt Co., New Haven Conn		25	ASH	50.	962.50	25 P9	721.75
Illinois Central RR. Chicago, Ill		24	A6HW	35.	750.00	20-5 P9	570.00
Los Angeles Auto Wks. Los Angeles, Cal.		120	A8	240.	4560.00	20 P9	3648.00
T. A. R. Export, NY		15	B4	7.50	176.25	25-5-10 P9	113.03
American Rwy Exp Co.	(A)	2	A8	4.	76.00	40 P9	45.60
"	(A)	1	G11	1.62	42.00	40 P9	25.20
"	(A)	1	A8	2.	38.00	40 P9	22.80
"	(A)	1	G31	1.62	42.00	40 P9	25.20
"	(A)	4	A8	8.	152.00	40 P9	91.20

270

424.74

8371.25

6471.74

(X) Shipped from Chicago Stock
(A) Replacement of Edison

Jaeger

*I was told Contract with Amer Exfo
would expire in July & we would
not get a price that would stop
our very severe losses - How about
this
Edison*

[ATTACHMENT]

Edison Storage Battery Company Battery Guaranty



GUARANTY NO. 276
SALES ORDER NO. _____
NUMBER OF CELLS _____ TYPE _____
DATE OF ORIGINAL SHIPMENT _____ 19__

To _____



As an assurance to you that the quality of durability possessed by the Edison Storage Battery shall inure to your benefit, we, the undersigned, EDISON STORAGE BATTERY COMPANY, hereby guarantee all the Type cells bearing serial numbers as per the list herewith as follows:

1. Any defect in workmanship or material which may develop within a period of one year from the date of shipment of said cells by us will be corrected free of charge, f. o. b. Orange, New Jersey.

2. If at any time within a period of TEN YEARS from the date of said shipment, any of said cells shall, when tested under our supervision, be found incapable of delivering at least _____ per cent. of their rated capacity of _____ ampere-hours, we will replace them with other cells having full rated capacity at a charge to you for each cell equal to the list price thereof at the date of accession by us of this guaranty less an allowance, for the cell replaced and returned to us, equal to the percentage of its list price set opposite the period during which the benefit of this guaranty is claimed in the following schedule:

Period during which benefit of guaranty is claimed	Percentage of list price allowed
First year.....	100 per cent.
First three months of second year.....	75 per cent.
Second three months of second year.....	75 per cent.
Third three months of second year.....	70 per cent.
Fourth three months of second year.....	67 per cent.
First three months of third year.....	64 per cent.
Second three months of third year.....	61 per cent.
Third three months of third year.....	58 per cent.
Fourth three months of third year.....	56 per cent.
First three months of fourth year.....	52 per cent.
Second three months of fourth year.....	48 per cent.
Third three months of fourth year.....	45 per cent.
Fourth three months of fourth year.....	42 per cent.
First six months of fifth year.....	40 per cent.
Second six months of fifth year.....	38 per cent.
First six months of sixth year.....	35 per cent.
Second six months of sixth year.....	32 per cent.
Seventh to tenth years inclusive.....	30 per cent.

50%

[ATTACHMENT]

All cells furnished to replace others hereunder will likewise be covered by this guaranty, subject to all the conditions herein contained, their replacement allowance being based upon the date of their shipment by us to you in accordance with the foregoing schedule; provided however that this agreement and guaranty and our responsibility hereunder shall not extend beyond the expiration of ten years from the date of shipment by us of the original battery of cells covered hereby.

All cells to be replaced shall be delivered to us f. o. b. Orange, New Jersey. All cells supplied hereunder will be delivered by us f. o. b. Orange, New Jersey. All cells and parts thereof replaced by us hereunder shall become our property. We reserve the right to require payment of the aforesaid charge in cash before replacing any cells hereunder unless your credit with us is satisfactorily established at the time of such replacement.

This guaranty and agreement is subject to the following conditions and is not binding upon us unless these conditions be faithfully observed:

- A. That all said cells be installed in a manner approved by us.
- B. That all said cells be used only in connection with apparatus approved by us and maintained in reasonably good repair.
- C. That all said cells be cared for and operated in accordance with our standard printed instructions.
- D. That our authorized inspectors and agents have access to said cells for test and inspection at any reasonable time.
- E. That all of said cells be used only for the purpose for which same are furnished to you, and used only within the limits of the United States, which for this purpose shall be considered not to include its insular possessions, Alaska or the Panama Canal Zone.

This guaranty and agreement applies only to the above cells sold to you and is not assignable or transferable. Furthermore, this guaranty and agreement shall not be binding upon us with respect to any cell lost or destroyed, or with respect to any cell damaged or injured through or by misuse, abuse, fire, wreck, collision, accident or other cause foreign to the service for which it is intended.

This guaranty and agreement is subject to the condition that we shall not be liable for any delay in replacing any cells hereunder due to any strike, fire, flood, war or any unavoidable cause, or due to inability to obtain or delay in obtaining material; nor for any other delay unless caused by our failure to use reasonable diligence in supplying cells for such replacements.

Orange, New Jersey

EDISON STORAGE BATTERY COMPANY

Date:

By _____
Vice President

Accepted: _____

By _____

Date _____

[ATTACHMENT]

Data relating to vehicle in which the battery hereby guaranteed is to be exclusively used:

Name of Manufacturer _____

Type of Vehicle _____

Manufacturer's Vehicle No. _____

LIST OF BATTERY CELL NUMBERS

[ATTACHMENT]

Edison
Storage Battery
Guaranty

44-64421

FUNCTION Storage Battery
 FROM Stephen D. Lambert
 TO Executive Committee

FINANCIAL DOCUMENT NO. 11-12-1921
 DATE November 22, 1921
 EFFECTIVE Date of issue

SUBJECT American Railway Express Co.
 (Mr. La Solum and Mr. Rhodes)

In accordance with Mr. Thomas A. Edison's suggestion of yesterday that I personally go to Mr. La Solum and talk to him about our contractual relations with them, Mr. Yagen 'phoned Mr. La Solum at his house last evening and arranged for the discussion which took place at Mr. La Solum's office this afternoon.

I find that Mr. La Solum is fully aware of the fact that the mal-adjustment of commodity prices has increased the competitive advantage of our lead competitors. In other words, while the materials entering into the make-up of our competitors' product have returned to within a few percent of their pre-war figure, the materials entering into our product still cost a considerable percentage more than was the case in the pre-war days. As Mr. La Solum expresses it, this is something which neither Edison, Exide or the American Railway Express can control - all that we can do is to have confidence in the ultimate success of electric transportation and look forward to the time when the re-adjustment of commodity prices will be completed, at which time we hope the above mentioned disparity in costs, will in large measure, be removed.

Mr. La Solum asks us not to place him in the position of having to say that it costs more to operate a Nickel Iron Potassium Battery than a lead Sulphuric battery. As near as he can determine from the figures which they have compiled to date on the comparative cost of operating the two classes of batteries, they have found that while the cost of repairs and upkeep of the Lead is a little greater than that of Edison, it is only greater by such a small amount as to be offset by the slightly greater quantity of charging current used by the Edison.

Mr. La Solum agreed that while this larger consumption of current by the Edison Battery could be explained away by the Edison engineers, nevertheless, by his own "rough-house" methods of calculation based upon his experience and actual practice, he was convinced that his statements relative to same were true.

In other words, he was satisfied in his own mind and thoroughly believed that the cost of operating the two batteries was roughly the same.

Relative to the comparative life of the two batteries, he stated that the Exide people were constantly improving the life of their Iron-Clad Battery so that at the present time, he was securing an average life of about 33 months, while from the Edison he was securing an average life of about 66 months, although he believed that with the gradual elimination of the C type, the greater predominance of the A's would tend to increase this average by

Manufacture file

possibly as much as six months additional life. However, many of the Iron-olad batteries were now showing a life of 36, 37 and 38 months, so that their records to date indicated a two to one life of Edison over the Exide Iron-olad.

Fortunately for us, he is disposed to effect the increased investment and interest charges in connection therewith against the fact that they only have half the number of replacements to make.

By this method of reasoning, he arrives at the conclusion that he is justified in paying for a new Edison twice the price of an Exide Iron-olad. But if he were to pay as much as one cent more than double the Exide Iron-olad price, he would then have to say that Edison was more costly than Lead.

Mr. La Schum is that self-made, practical type of man that conveys the impression of thoroughly believing what he is saying, and in a spirit of being absolutely fair, has released this thing in his own mind and arrived at the balancing point, namely: two to one of life and two to one of cost, which it would be very difficult and probably unwise for us to try to upset.

He states that there is absolutely no question about the price of our new batteries in comparison with the price of Exide Iron-olad, and according to such competitive line on the situation as our Sales Department has been able to secure from time to time in the past, he is right in this regard.

Our competitors uniformly offer him replacements at 80% of what he pays for new batteries, so that on this basis, namely 80% of our new battery price to him, which is 30% off list, he can afford to pay for the replacement of one of our batteries from which he has secured full and satisfactory life, list less 44%, that is 56% of list.

In view of the fact that they use A-8's of which the list price is \$38.00, or \$19.00 an A-4, this discount would net us and cost him \$10.64 per A-4 replacement.

My call had the effect of clearing up one phase of misunderstanding which has always existed in my mind relative to Mr. La Schum's demands on us, in that I have always understood from the Sales Department that Mr. La Schum wished us to adopt a sliding scale based upon five years fifty percent, and pro rata for any shorter life, but with no additional pro rata compensation to us for a life longer than five years.

I find that when he talks pro rata, he means the following, which is decidedly better than the interpretation as I have heretofore understood it. The figures which he actually has in mind representing their payments to us for battery service are as follows:

List price	100%	\$19.00
Less Discount	<u>30%</u>	<u>5.70</u>
Cost of New Battery	70%	\$13.30
Renewal Cost	<u>80%</u>	<u>80%</u>
5th Year (Second Half)	56%	\$10.64
(First Half)	<u>50.4%</u>	<u>9.58</u>
4th Year (Second Half)	44.8%	8.51
(First Half)	<u>39.2%</u>	<u>7.45</u>
3rd Year (Second Half)	33.6%	6.38
(First Half)	<u>28.0%</u>	<u>5.32</u>
2nd Year (Second Half)	22.4%	4.26
(First Half)	<u>16.8%</u>	<u>3.19</u>
1st Year (Entire First Year)	11.2%	2.13

Mr. Le Schum does not feel in his own mind that we are under any obligation at the present time to either sell them new batteries or make replacements for an indefinite period at the present schedule of prices and discounts if we find it necessary to change same. He states that while he would regret to have present conditions, which he believes will only be temporary and soon be re-adjusted, cause us to feel that we must increase our list prices or decrease our discounts further than provided for in the above schedule, that if we were to find it necessary to do so, that they are in a position, due to the large number of their trucks which are equipped with Universal motors usable with either Edison or Lead batteries, to merely switch their new business or their replacements to Lead. He states that they would try to hold off as long as possible from so changing over their replacements, especially if they felt assured that any decrease of discounts which we might introduce, would be only temporary, but on the whole, their position is best summarized by the fact that they recognize the good qualities of the Edison. They believe that electric transportation is the coming thing; that as yet electric transportation has not come into its own; they want to do everything in their power to assist us to keep up the fight until electric transportation does come into its own, which they thoroughly believe it will do in the not too distant future, and as a measure of aiding us along this line, are willing to pay us as much for our product per month of life as they pay per month of life to our competitors, but beyond this point do not feel that they would be justified. Neither would they advise that we put them in the position where it becomes necessary for them to admit that the price of Edison is higher than the price of Lead.

--- ooo ---

Mr. Le Schum has in mind that it would be much better from both our standpoints if we could exchange letters defining our understandings one with another, and to this end, he will tomorrow prepare draft of his understanding

- 4 -

and we will do likewise, these drafts to be used as a basis of discussion which we will probably have either on Friday or the early part of next week.

Manuelt

D
1922

FEB - 4 '22

Butler
Storage

Mr. Edison:-

You asked me to check the employees on salary (private pay roll) with the end in view of reducing same.

Attached is my suggestions, have not been able to thoroughly investigate each case, but they are my honest opinion and as I see conditions.

There may be good reasons for not acting on some, but there is a field for some reductions and savings.

Suggest that if you consider any of it advisable, to have one of your men carefully investigate in detail or send list to Mr. Hagan and ask why all or part cannot be done.

~~Am giving each case my own separate sheet to you, with an extra copy of your check and retain one for your file until sufficient action taken.~~

In the good of the organization and not to make it any harder for me over here kindly treat this strictly confidential as to its source or where the information came from.

Samt.

[ENCLOSURE]

STORAGE BATTERY:

Mended

Pagan, Monahan, Blair -

Question the necessity of all three. Could not at least one be eliminated. If we must have a General Manager, why cannot he also be Works Manager, or Sales Manager along with the General Manager's duties. A man should be able to handle both.

Now have:

Pagan - Vice-President & General Manager
Blair - Sales Manager
Monahan - ? (assume Works Manager or Supt.

Three men in all when two should be enough.

SUGGEST:

1. General Manager (and Works Manager)
2. Sales Manager

o r

1. General Manager (and Sales Manager)
2. Works Manager

Mr. Kolbert - Listed in Pagan's Office. Was there first at the July reduction, was then transferred to Mumbert's office, and now back to Pagan.

Mr. Pagan has Miss Stalker for Stenographer and Secretary.

Why Kolbert? Is not his duties in parallel with Wilson in Mumberts office as far as the Battery is concerned? or could not these jobs be combined and one man handle either Kolbert's or Wilson's work. Moreover, Balvire who is a service clerk in Sales, could do this work of Kolbert.

If Kolbert's duties are records and statistical work, a bright young girl could keep this up.

This one looks like excess baggage. Am informed that pull is keeping this man.

[ENCLOSURE]

STORAGE BATTERY

SALES - Orange.

Three men. Wilson, Sanborn, Rowick. Men are listed and called General Road Salesmen.

Would say that Wilson is. Not much to say about Sanborn.

Rowick is here most of the time. At the July reduction he was sent to Philadelphia and is now back here.

Why not make these men Road Salesmen - or possibly their work can be combined and two men handle, doing away with one.

From present arrangement, on the surface, it looks like one excess baggage.

Also understand friendship comes in here towards retaining one.

Sales - Orange - continued.

There are - Veale, Hartman, Hayes - three men. Combine work and two handle, doing away with one. Would say Hayes.

If this cannot be done, surely a good girl can handle the work, in addition to helping out on typing. Veale and Hartmann taking over that part of Hayes work which a girl cannot do - or Ralivre take over part of the work along with the other two.

Would say that one excess employee here.

ENGINEERING:

Believe that Douglas could be let go or combine his work and that of Sales Engineer Mitchell, eliminating one man, either Douglas or Mitchell.

Under present conditions do not see just why the necessity of a man for the work Douglas does.

They have Douglas, Mitchell and Leach. It does look as though work here could be so arranged that two men could handle, so as to reduce one.

[ENCLOSURE]

STORAGE BATTERY - continued:

ACCOUNTING:

They have increased their force three. Do not look necessary unless it is for inventory. Work surely has not increased to the extent of where three more are required here.

Believe by a combination of work that at least two could be eliminated. Still the work and records here might warrant this help, but on the surface does not look so, or from the hustle in the department.

MANUFACTURING:

Have increased one girl in Stores or Production. Was it necessary. May be due to increased production and required.

FACTORY:

Combine Cell Assembly and Mine Lamp Departments under one Foreman. Now have two, and one could handle under present production.

MAINTENANCE AND CONSTRUCTION:

It appears that they have too many employees. By a careful study could not a reduction be made here.

REPAIR DEPARTMENT:

By a thorough check and study of this Dept. - which would do no harm - believe changes could be put in effect which would be beneficial, also reduce number of employees.

[ENCLOSURE]

STORAGE BATTERY - Continued.

INVENTORY CREW:

This crew has been on quite some time. They should be finished up by now. Speed up and get it over with. The appropriation, I understand, has been used up.

The following should be checked as to why their increase in force:

NEW YORK GARAGE - CHICAGO OFFICE - WASHINGTON OFFICE -

All Salesmen should be checked as to their real worth. Believe that good up to the minute extensive advertising is what counts. Then order takers are required, and not salesmen. By this plan the salesmen could be greatly reduced.

BATTERY-STORAGE

CHARLES EDISON.

DIVISION:

SUBJECT:

Storage Battery for R. R. Signals.

Memo. No. 281

Date 10/22/22.

Mr. Fagan
Mr. McNamee:

Inasmuch as the Primary Battery Division has for many years specialized in supplying electrical energy for the operation of Railroad signaling functions, it has long appeared to me logical, that it should handle the sales of Edison Storage Batteries in this field as well as its own product.

Without going into detail on the subject, I wish to point out certain outstanding advantages.

1. Storage and Primary Batteries are direct competitors of each other in several phases of the signaling field. A consistent policy, carefully administered, is necessary to preserve a proper balance between Primary and Storage Battery effort. This can best be accomplished by having a single executive head do the steering, rather than two, as at present. Handled together, Primary and Storage Batteries can be coordinated and made to supplement each other properly, adding to the strength of our position with the Railroads on both products. Handled separately, one type will always tend to crowd out the other.
2. Single management will eliminate waste in sales effort through making it unnecessary for both Primary and Storage Battery companies to have men covering the same field.
5. A salesman handling both Primary and Storage Batteries is free to urge on signal engineers the best form of electrical energy for a given purpose in an unprejudiced way. A competitor would not be able to walk away with the business while two Edison salesmen are each trying to convince the signal engineer that his form of energy is best.

(2)

4. With a single management we present a united front to the outside. Confusion in the minds of purchasers as to who is who in our organization is eliminated. In the signal field we would have but one point of contact with the outside, making it easy to fix responsibility for loss of business, bad service, etc.
5. It eliminates the possibility of inaction on the part of both organizations through the fear that they are treading on each other's toes.

There are other arguments in favor of this change.

I propose, therefore, the following resolutions be adopted:

RESOLVED:

Effective November 1st, 1922, that part of the business of the Edison Storage Battery Co. that has to do with the selling and supplying of electrical energy for the operation of Railroad signaling functions and the field service pertaining thereto shall be taken care of by the Primary Battery Division of Thomas A. Edison, Inc., and:

That suitable internal agreements providing for equitable compensation to both divisions, and for working rules and methods, be executed forthwith.

CHARLES EDISON.

Common file Battery - Storage

November 21, 1922

Deutsche Edison Accumulatoren Co.,
Askaniischer Platz 3,
S.W. 11, Berlin, Germany

Gentlemen:

If you will refer to Paragraph 5 of your agreement with me of January 1, 1914, you will note that there are two classes of payments provided for in the said paragraph:

(a) Royalties payable on the 15th day of January, April, July and October of each year at the rate of Twenty-four one-hundredths of a cent (\$.0024) per ampere hour capacity of each storage battery cell manufactured each quarter during the life of the agreement, payable in United States Dollars.

(b) An additional amount payable each year on the anniversary of the date of the agreement in case the payments to be made under (a) during the year shall be less than the sum of Sixty Thousand Marks (M 60,000).

Taking the figures contained in the statement which you furnished me on October 31, 1921, the amount now due to me for royalties computed in accordance with Paragraph (a) hereof amounts to \$8,056.30, made up as follows:

<u>Year</u>	<u>Ampere Hour Capacity</u>	<u>Royalty</u>	<u>Amount</u>
1914	1,329,791.20	\$.0024	\$3,191.50
5	1,004,774.50		2,411.46
6	802,191.25		1,925.26
7	635,761.30		1,525.68
8	430,398.50		1,032.96
9	121,997.75		292.79
1920	<u>62,355.60</u>		<u>149.68</u>
	4,387,300.00	\$.0024	\$10,529.52
	Previously paid in 1914		<u>2,471.22</u>
	Balance due		\$8,056.30

I consider this amount to be due and payable to me in United States Dollars.

In addition to above amount, there are three items standing on our books dating back to April 1908 as follows:

April 1908	Royalty	\$1,223.04
August 1908	"	1,092.00
November 1914	Our Invoice 10681	
	Acct Austrian	
	Patent Tax	<u>48.92</u>
	Total	\$2,353.96

I, therefore, request you to remit to me the above mentioned amounts, totaling (two items) \$10,412.26 (Ten Thousand Four Hundred Twelve Dollars Twenty Two Cents), in United States Dollars by New York Draft.

I shall appreciate it if you will give this matter your prompt attention.

Yours Very Truly,

TELEPHONE AUDUBON 0636

E. N. GOODMAN
Electrical Engineer
600 WEST 140TH ST.
NEW YORK

*What battery is
this - what tubes
etc*
May 25, 1922

Mr. Edison
E. N.
Edison Storage Battery Co.,
Orange, N.J.

Gentlemen:-

Attention: Mr. Blair, Sales Manager.

I just purchased from the U.S. Navy one of your submarine batteries, consisting of 200 cells, having a discharge rate of 3150 amperes for one hour, or 1325 amperes for three hours. Dimensions of each cell are 18-3/4" X 9-3/32" X 48-1/2" including supporting insulators. Weight 665 pounds per cell.

This battery has never been used, and I thought you might be interested in purchasing same. I would be pleased to have your offer if interested.

Thanking you for a reply, I am,

Very truly yours,

ENG/S

E. N. Goodman

[ATTACHMENT]

Charles - I think
we better not touch it
The tubes are poor & you
don't even know
that we don't interest

As far as I can
learn fitting is the
last "3" waiting

It has 16" tubes
It sold for \$43,000
" cost was \$60,000
to make.

See

Egerton

Walker - not interested
Draught letter.

S.E. 1907-2390-JL
OLD NO. 1283

EDISON STORAGE BATTERY CO.
Memorandum

June 19, 1923

MR. CHARLES EDISON:-

This covers a new form of combined steamer and still which this Company has developed at our request for use in electric truck garages.

The steamer will furnish sixty pounds of steam for blowing off and cleaning cells, and the still will produce at a maximum five gallons per hour of distilled water. The heating is automatic, the water supply is automatic, and the whole outfit is to pass standard boiler inspection.

I am ordering this for the New York Garage as a place where we may give the thing a thorough practical trial.

H. C. EDISON

Thos. A. Edison
Chief Engineer
Ed. Stor. Bldg.

Exhibit
450.00

What do
you say?

[Handwritten signature]

OK for our garage in my
Bldg. - but we should not
handle it for selling to our
customers

Lithium Hydrate

(COPY)

Nov. 28, 1923.

Mr. Egerton:

Lithium Hydrate is the most ticklish product in any of the Edison interests from the standpoint of insecurity of supply.

Outside of the Maywood Chemical there are no manufacturers of this product on anything like a commercial scale anywhere in the world?

Nobody else has lithium hydrate to any extent. We consume probably 90% of the world's production. There are no stocks distributed around the country available in case of emergency.

If anything happens to Maywood we are absolutely stuck.

Mr. Edison has taken some steps to protect this situation but he is not yet ready.

Not only do I think we should have a three months' supply always on hand but also I think this stock should be stored in two or more places.

At one time we had a rule not to let the stock drop below a certain number of pounds but I have forgotten the amount.

C.F.

P.S. Mr. Edison said he would see the Maywood people, so you had better see Mr. E. before doing anything about this.

CE

D
1924

Battery Storage

✓

THE THOMPSON & NORRIS COMPANY

CORRUGATED PAPER AND SHIPPING CASES

PRINCIPAL OFFICE & WORKS,

CONCORD & PRINCE STREETS

BROOKLYN, N.Y.

FACTORIES
BROOKLYN, N.Y.
BOSTON, MASS.
BROOKVILLE, IND.
PULP MILL
BOARS HILL
GORDON, GA.

FACTORIES
MONTREAL, QUE.
TORONTO, ONT.
LONDON, ENGLAND.
CABLE ADDRESS
"CORTEX-BROOKLYN"

BROOKLYN, N.Y. Oct. 18th, 1924

BR
Mr. Edison
P.S. note & ret.
1/2

Allen

Mr. Charles Edison,
Edison Storage Battery Co.,
Orange, N.J.

Dear Mr. Edison:-

I beg to acknowledge, with thanks, your letter
of the 17th instant, enclosing first dividend check for the
Edison Storage Battery Co. (2% on the Common Capital Stock).

Please remember me kindly to your good parents
and with best wishes, I remain

Yours very truly,

Jonathan Thompson

Charge
noted

BATTERY-STORAGE

Back

December 30, 1924

MR. T. A. EDISON:

I have your Traveler's Report signed by H. T. Jones and note your comment thereon.

The little Booklet referred to by the Traveler is the only Booklet or folder which I have permitted an Advertising Agent to get out. The other booklets and literature has practically all been written by myself.

The Advertising Agent wanted to have this booklet read-"For A Perfect Radio Christmas Use Edison Batteries." I made the point that Radio is not perfect or nothing is perfect. This booklet, as I see it, does not advocate Radio in any way. It does say "Edison Batteries for a better Radio Christmas." We know that one will get better service from any make of Radio by using Edison Batteries than he can from using lead or dry cells, since according to your Traveler's Report, Tubes and Batteries give 85% of the Radio trouble. Certainly one would have better service from his Radio Outfit if he eliminated battery trouble - that is why the booklet reads "For A Better Radio Christmas Use Edison Batteries."

We have not advocated the use of Radio in our advertising or our direct by mail literature. Copy of all the literature which we have sent out is attached hereto.


What we are trying to do is to sell Edison Batteries to the people who buy Radios', not through our recommendation but through their desire for Radio.

I appreciate the fact that Radio is in direct competition with the Phonograph and I would certainly be willing to retire from the Radio Battery business at once if I thought that our going after this business would in any way effect the sale of the Phonograph. I am interested not only in the Battery Company making money, but interested in the entire industry making money.

I feel that it would have been better if the wording on this bulletin had been something like this- "For Better Service From Your Radio - Use Edison Storage Batteries", instead of "For A Better Radio Christmas Use Edison Batteries."

-2-

Of course you understand, before sending literature to any of your dealers the matter was taken up with you personally and you said "Go Ahead" and after I had gotten your authority to do this I got in touch with Mr. Farrier who gave us the names of the dealers which he wanted to material to go to.

G. E.  FELLOW

GES:EME

[ATTACHMENT]

Put on Desk

Mr. Edison:

The other two travelers -
Joennics and Sullivan - have
also said that, because the
dealers received literature on
the Edison Radio Patent, they
find it hard to talk down
Radio. The dealers tell them
it is inconsistent for one
Edison dept to advertise
Radio and another Edison
dept to discourage it.

I have told the travelers
to say that we do not believe
that Radio compares with the
Edison Phonograph in quality,
but for those who have Radio
sets, and who want better than
(over)

[ATTACHMENT]

The average service on batteries,
we regard the Edison Battery is
the thing.

Any additional "assistants"
you can give me will be very
much appreciated, as when
talking with dealers on the
phone, or in the office, I am
sometimes asked, "Why is it,
if the Edison Company don't
advertise Radio, that they
have come out with a Radio
battery and ask us to take it on?"

Mumma

[ATTACHMENT]

TRAVELER'S DAILY REPORT

12-15-24 19__

Enclose in duplicate and forward both copies to Jobber, who will forward one copy to Chicago and retain the other for his file.

Disc ☐ Disc and Amberola ☐ (Check proper classification)
Amberola ☐

Town _____ County _____ State _____
Dealer _____ Street Address _____
Kinds of "Talkers" Handled _____ No. of T. M. Dealers in Town _____
Condition of Principal Industries of Locality? _____
Attitude of Dealer toward Edison? _____

CANVASSING		Yes No	Are They Satisfied with Results? . . .		Yes No
Does Dealer Canvass?	<input type="checkbox"/>		ADVERTISING		
Number of Canvassers?	<input type="checkbox"/>		How Does Dealer Advertise?		
Full Time?	<input type="checkbox"/>		(a) Newspapers?		<input type="checkbox"/>
			(b) Use Our Copy?		<input type="checkbox"/>
			(c) Use Our Electro Service?		<input type="checkbox"/>
			(d) Use Our Streamers?		<input type="checkbox"/>
			(e) Use Record Hangers?		<input type="checkbox"/>
RADIO			(f) Use Our Window Displays?		<input type="checkbox"/>
Does Dealer Handle?	<input type="checkbox"/>		(g) Does Jobber Mail Supplements?		<input type="checkbox"/>
Successfully?	<input type="checkbox"/>		(h) Does Dealer Mail Supplements?		<input type="checkbox"/>
How Many Radio Dealers in Town?	<input type="checkbox"/>		(i) Is Edison Stock Prominently and Attractively Displayed?		<input type="checkbox"/>
			(j) Other Forms of Advertising?		<input type="checkbox"/>

DEALER'S STOCK

Model	Quant.	Model	Quant.	Model	Quant.	Model	Quant.	Amberola	Quant.
Disc Records: White Label				; Black Label				; Amberol Records	

REMARKS: Tell specifically what you did to help dealer; list complaints; special comments; etc.

I have always discouraged the dealer, so far as possible, to keep away from Radio, and now our dealers have had circulars sent them by the Edison Co, at Orange, on A and B Batteries. These dealers have sent in the first card requesting prices etc. and have received a pamphlet entitled, "For a Better Radio Christmas." Now they say, "Edison has started in Radio. When is he going to put out a set." The dealers all seem anxious to get the exclusive selling rights for the Batteries, even those who do not handle R.I. did at the present time want to put them in, and then it won't take much talking on the part of Radio Salesmen, or many inquiries, for Radio before they are stocked up. They argue that "Edison won't put out a Radio, either because he is not in favor of it, or is afraid it will hurt the sale of Phonographs, and still he comes out with a circular advertising a Better Radio Christmas."

You can reach me
On _____ At _____
On _____ At _____

Traveler *H. J. Jones*
Jobber *P.C. of M*

Edison Storage Battery Company

Battery Service Guaranty

Industrial Truck or Tractor Service

GUARANTY No. _____

SALES ORDER No. _____

No. OF CELLS _____ TYPE _____

DATE OF ORIGINAL SHIPMENT _____

TO _____

192 _____

1. **Guaranty.** We hereby guarantee to correct free of charge, f. o. b. our nearest Service Station, any defect in workmanship or material which may develop within a period of one year from the date of shipment by us of all the Type _____ cells bearing serial numbers as per the list herein.

2. **Agreement.** As an assurance to you that the **QUALITY** and **DURABILITY** possessed by the Edison Storage Battery shall contribute to your benefit, we agree that if at any time within a period of **TEN YEARS** from the above date of original shipment, any of said cells shall, when tested under our supervision, be found incapable of delivering at least 80% of their rated capacity of _____ ampere hours after a normal charge, we will replace them with new cells having 100% of rated capacity at a charge to you for each cell equal to the list price thereof at the date of replacement by us, less an allowance, as hereinafter provided, for each cell replaced and returned to us, equal to the percentage of the list price thereof at the date of replacement set opposite the period during which the benefit of this replacement is claimed in the following schedule:

Period during which benefit of replacement is claimed	Percentage of list price allowance
First year	100 per cent.
First six months of second year	75 per cent.
Second six months of second year	65 per cent.
First six months of third year	55 per cent.
Second six months of third year	50 per cent.
First six months of fourth year	45 per cent.
Second six months of fourth year	40 per cent.
First six months of fifth year	35 per cent.
Second six months of fifth year	30 per cent.
Sixth year	25 per cent.
Seventh year and last six months in 8th year	20 per cent.
Second six months in 8th year and 9th and 10th years	25 per cent.

3. All cells furnished to replace others hereunder will likewise be covered by this guaranty and agreement, subject to all the conditions herein contained, their replacement allowance being based upon the date of their shipment by us to you in accordance with the foregoing schedule; provided however, that this agreement and guaranty and our responsibility hereunder shall not extend beyond the expiration of ten years from the date of shipment by us of the original battery of cells covered hereby. However, if at the time of any replacement of cells hereunder, we shall be then offering to customers for the same class of service

on last month of 10th year a new battery gives in do work worn and

Data relating to vehicle in which the battery hereby guaranteed is to be exclusively used:

Name of Manufacturer

Type of Vehicle.....

Manufacturer's Vehicle No.....

LIST OF BATTERY CELL NUMBERS

as that covered by this agreement, the same or a more favorable guaranty or service agreement, you shall have the option, upon notice to us in writing, of electing that we give you with the new cells a new guaranty and agreement such as we may then be offering, to apply to said new replacement cells, in lieu of this guaranty and agreement.

4. All cells supplied hereunder shall be delivered by us f. o. b. Orange, New Jersey, terms; Net 30 days, 2% discount for cash within 10 days from date of invoice. We reserve the right to require payment in cash of the full invoice value of all cells supplied hereunder before replacing any cells hereunder unless your credit with us is satisfactorily established at the time of such replacement.

5. All cells replaced by us hereunder shall become our property, and shall be delivered to us f. o. b. Orange, New Jersey; and shall be shipped to us with transportation charges prepaid, within thirty days after arrival of the replacement cells supplied hereunder. In case of your failure to ship us in the manner and within the period hereinbefore agreed upon any of the cells replaced hereunder, we shall at any time thereafter have the right to bill you for such cells not shipped as aforesaid at the amount of the allowance made therefor, and you will accept and pay such bill within thirty days from the date thereof.

6. If, at the time of any replacement hereunder, we are required to pay any Federal, State, County, Municipal or other tax on account of such replacement, we shall have the right to add the amount of such tax to the charge made you for such replacement.

7. This guaranty and agreement is subject to the following conditions:

A. That all said cells be installed and used only in connection with apparatus approved by us and which is maintained in reasonably good repair.

B. That you use only electrolyte manufactured by us, flushing with distilled water, keeping the electrolyte at all times above the tops of the plates and at a temperature below 115° Fahrenheit.

C. That our authorized Service Men and Agents have access to said cells for test or inspection at all reasonable times.

D. That all of said cells be used only for the purpose for which same are furnished to you, and used only within the limits of the United States (which for this purpose shall be considered not to include its insular possessions, or the Panama Canal Zone), Alaska, and the Dominion of Canada.

8. This guaranty and agreement applies only to the above cells sold to you and is assignable or transferable only with our written consent.

9. Furthermore, this guaranty and agreement shall not be binding upon us with respect to any cell lost or destroyed, or with respect to any cell damaged or injured through or by misuse, abuse, fire, wreck, collision, accident or other cause foreign to the service for which it is intended.

10. This guaranty and agreement is subject to the conditions that we shall not be liable for any delay in replacing any cells hereunder due to any strike, fire, flood, war or any unavoidable cause, or due to inability to obtain, or delay in obtaining, material; nor for any other delay unless caused by our failure to use reasonable diligence in supplying cells for such replacements.

Orange, N. J.

EDISON STORAGE BATTERY COMPANY

By _____
Vice-President and General Manager.

Accepted

By _____

EDISON STORAGE BATTERY CO.

BATTERY SERVICE
GUARANTY

**Edison Storage Battery Company Records
Corporate Documentation (1901-1924)**

This folder contains agreements, minutes, certificates, and other official documents pertaining to the formation and activities of ESBCo. There are also draft versions of official agreements, which Edison helped to prepare. Included are items relating to the organization of the company in 1901, to increases in its capitalization in 1910 and 1917, to mortgages obtained, and to sales agreements executed with the Lansden Co., F. J. Lisman & Co., and others. Some of the documents concern agreements that ESBCo signed in 1912 with the General Vehicle Co. and the Hartford Electric Light Co. for supplying, charging, and maintaining storage batteries in electric vehicles. Also included are meeting announcements with marginal notations by Edison; minutes of individual meetings; three addresses delivered at stockholders' meetings; and a 1919 filing for the Internal Revenue Service regarding the assets and liabilities of ESBCo and the valuation of Edison's patents. Related material can be found in the Harry F. Miller and Richard W. Kellow Files (Legal Series).

Approximately 80 percent of the documents have been selected. The unselected material consists of documentation regarding the Edison Storage Battery Supply Co.; duplicate copies of agreements; drafts of agreements that were not executed; patent assignments; routine meeting announcements; and items that duplicate information in selected material.

L E A S E

THOMAS A. EDISON

TO

EDISON STORAGE BATTERY
COMPANY

DATED JUNE 20, 1901

HOWARD W. HAYES,
COUNSELLOR AT LAW,
765 BROAD STREET,
NEWARK, N. J.

WITNESSES:
FOR EDISON STORAGE BATTERY:
FOR HOWARD W. HAYES:

WITNESSES:
FOR EDISON STORAGE BATTERY: FOR HOWARD W. HAYES:

THIS INDENTURE made this twenty-ninth day of June, 1901, between -

THOMAS A. EDISON,

of the Township of West Orange, in the County of Essex, and State of New Jersey, of the first part, and -

EDISON STORAGE BATTERY COMPANY

a corporation organized under the laws of the State of New Jersey and located in said Township of West Orange, of the second part, WITNESSETH:

That the said party of the first part for, and in consideration of the rents, covenants and agreements hereinafter mentioned, reserved and contained, on the part and behalf of the party of the second part and its successors, do to be paid, kept, and performed, has leased and demised and to farm let, and by these presents doth lease, demise and to farm let, unto the said party of the second part and its successors and assigns all those two certain tracts of land and premises hereinafter particularly described, situate, lying and being in the Township of Bloomfield, in the County of Essex and State of New Jersey.

THE FIRST TRACT: Beginning at a point in the Northwesterly line of Belmont Avenue, eight hundred and forty-three feet northeasterly from Bloomfield Avenue; thence running northeasterly along the northwesterly line of Belmont Avenue one hundred and nine feet; thence northwesterly at right angles to Belmont Avenue two hundred and seventy feet; thence southwesterly parallel to Belmont Avenue one hundred and nine feet; thence southeasterly at right angles to Belmont Avenue two hundred and seventy feet to the northwesterly

OK.
Exh. 11-7-11

Line of Belmont Avenue and place of Beginning.

THE SECOND TRACT: Beginning at a point in the northwesterly line of Belmont Avenue eleven hundred and forty feet northeasterly from Bloomfield Avenue; thence running North-easterly along the northwesterly line of Belmont Avenue two hundred and fifty feet; thence Northwesterly at right angles to Belmont Avenue three hundred and fifty feet; thence southwesterly parallel with Belmont Avenue two hundred and fifty feet; thence southeasterly at right angles to Belmont Avenue three hundred and fifty feet to the northwesterly line of Belmont Avenue and place of Beginning.

Together with the appurtenances and the building now erected on the said first tract; to have and to hold the said above mentioned and described premises with the appurtenances unto the said party of the second part, its successors and assigns from the twenty-ninth day of June, in the year Nineteen hundred and One, for and during and until the full end and term of five years then next ensuing, and fully to be completed and ended, yielding and paying therefor unto the said party of the first part, his heirs or assigns, yearly and every year during the said term hereby granted, the yearly rent or sum of-

FIVE HUNDRED DOLLARS

lawful money of the United States of America in equal quarter yearly payments in advance, to wit: on the first days of July, October, January and April in each and every year during the said term; provided always, nevertheless, that if the yearly rent above reserved, or any part thereof, shall be behind or unpaid, on any day of payment whereon the same ought to be paid, as aforesaid; or if default shall be made in any of the covenants herein contained on the part and behalf of the said party of the second part, its successors, to be paid,

kept and performed, then and from thenceforth it shall and may be lawful for the said party of the first part, his heirs or assigns, into and upon the said demise premises, and every part thereof, wholly to re-enter, and the same to have again, repossess and enjoy, as in his or their first and former estate, anything hereinbefore contained to the contrary thereof in any wise notwithstanding.

And the said party of the second part, for itself and its successors, doth covenant and agree, to and with the said party of the first part, his heirs and assigns, by these presents, that the said party of the second part, its successors or assigns, shall and will, yearly and every year, during the term hereby granted, well and truly pay, or cause to be paid, unto the said party of the first part, his heirs or assigns, the said yearly rent of-

FIVE HUNDRED DOLLARS

above reserved, on the days, and in the manner, limited and prescribed, as aforesaid, for the payment thereof, without any deduction, fraud or delay, according to the true intent and meaning of these presents; and that the said party of the second part, its successors or assigns, shall and will, at their own proper costs and charges, bear, pay and discharge all such taxes, duties and assessments whatsoever, as shall or may, during the said term hereby granted, be charged, assessed or imposed upon the said described premises; and that on the last day of the said term, or other sooner determination of the estate hereby granted, the said party of the second part, its successors or assigns, shall and will peaceably and quietly leave, surrender and yield up, unto the said party of the first part, his heirs or assigns, all and singular the said demise premises. And the said party of the first part, for himself, his heirs and assigns, doth covenant and agree, by

these presents, that the said party of the second part, its successors or assigns, paying the said yearly rent above reserved, and performing the covenants and agreements aforesaid, on its and their part, the said party of the second part, its successors and assigns, shall and may at all times during the said term hereby granted, peaceably and quietly have, hold and enjoy the said demised premises, without any let, suit, trouble or hindrance, of or from the said party of the first part, his heirs or assigns, or any other person or persons whomsoever, and may at the expiration of said term remove from said demised premises, all buildings and other structures erected by the said party of the second part upon said premises during the said term.

IN WITNESS WHEREOF the said party of the first part has herunto set his hand and seal and the party of the second part has caused these presents to be signed by its President and its corporate seal to be hereto affixed, in duplicate, the day and year first aforesaid.

Signed, sealed and delivered :

in the presence of

Attest
J. H. Randolph
Secretary

EDISON STORAGE BATTERY CO.,

Thomas A. Edison
President

Thomas A. Edison

Wm. H. Long

ESBC,

RECEIVED from F. W. Wh i t t i d g e, twenty thousand dollars (\$20,000), in part payment of the subscription of \$200,000 to the bonds of the Edison Storage Battery Company. The terms of said subscription are not yet definitely settled with all the subscribers, but it is understood that in any event there shall be a bonus of fifty per cent (50%) of the amount of subscription, paid to the subscriber in the stock of the Edison Company at par, either when the entire amount of the subscription shall have been paid, or in any event at the end of three (3) years.

Dated, July 15th 1901.

Edison Storage Battery Co.
By J. E. Dick

MEMORANDUM OF AGREEMENT, made between the Edison Storage Battery Company, a corporation organized under the laws of the State of New Jersey, party of the first part, and the several subscribers, whose names are hereunto annexed, parties of the second part and Thomas A. Edison, party of the third part.

WHEREAS, the party of the first part desires to borrow the sum of Five hundred thousand Dollars (\$500,000.), to be secured by its mortgage bonds, and whereas the parties of the second part are willing to loan the said sum of Five hundred thousand Dollars (\$500,000.).

NOW THIS AGREEMENT WITNESSETH: in consideration of the mutual covenants and agreements herein contained as follows:-

FIRST: The party of the first part agrees to deliver to the subscribers hereto the several amounts of its bonds set opposite their respective names, (as and when the subscriptions thereto shall be called and paid), said bonds to be secured by the first mortgage upon its plant and business and bearing interest at the rate of Six per cent (6%), the same to run fifteen years subject to rights of redemption as provided in said mortgage; and the mortgage securing the same shall provide that before any dividends shall be paid upon the stock of the Company during any fiscal year, Four per cent (4%) of the then outstanding bonds shall be paid or the sum necessary to pay the same set aside out of such

fiscal year's earnings.

SECOND: The subscribers hereto agree to take the several amounts of bonds set opposite their respective names upon the following terms and conditions:-

A.- The Company shall have the right to call as and when it may desire for the payment of any part of the amount subscribed. Such instalments to be called upon twenty days notice.

B.- Upon payment of each instalment the Company shall issue to the subscribers bonds for the amount of such call. The Company shall give to each subscriber upon the payment of the first instalment a certificate of stock in the name of the said subscriber to the amount of Fifty per cent (50%) of the amount of the principal sum subscribed for by him, which said certificate of stock shall be endorsed for transfer by said subscriber and deposited with the Treasurer of said Company, in escrow, and shall be redelivered to said subscriber three years from the date hereof, or upon the calling and paying of One hundred per cent (100%) of his said subscription, if such call of One hundred per cent (100%) shall be made in less than three years from this date; have complied with the terms of this agreement and shall provided such subscriber shall make payment of the instalments as provided therein, if such instalments are not paid the whole or any part of the said stock may be forfeited by the Company. Said certificates of stock being part of the stock to be deposited with the Treasurer of said Company by Thomas A. Edison, as hereinafter provided. The re-delivery of the certificates to each subscriber shall be made as aforesaid irrespective of whether or not the entire amount subscribed shall be called within a period of three years from the date

hereof.

C.- Any portion of said subscriptions which shall not be called for by the Company within a period of three years from the date hereof, shall be cancelled and all liabilities of the subscribers thereunder shall cease and terminate.

THIRD: Thomas A. Edison agrees to deposit with the Treasurer of the said Edison Storage Battery Company certificates for the Two hundred and fifty thousand Dollars (\$250,000.), of stock above mentioned endorsed for transfer to the said subscribers for the purposes hereinabove set forth, and, in addition thereto, stock of the said Company, of the par value of Seven hundred thousand Dollars (\$700,000.), owned by him; reserving to himself the voting power on all of said stock until the entire amount of the subscriptions hereto, which shall have been called, are paid. At such time or at three years from the date hereof, if at that time the entire amount of the said subscriptions shall not have been called, the said Treasurer shall re-deliver to Thomas A. Edison the said certificates of stock of the par value of Seven hundred thousand Dollars (\$700,000.).

FOURTH: During the period contemplated by this agreement, all dividends, if any, shall be paid to the parties in whose names the stock shall be registered, provided however, that any party of the second part who shall be in default, or who shall fail to comply with the terms of this

agreement, shall not be entitled to receive any dividend upon any of said stock which may be standing in his name.

The provisions of this agreement shall extend to and bind the personal representatives, successors and assigns of the respective parties hereto.

Orange, N.J., July 11th, 1901.

Attest:	EDISON STORAGE BATTERY CO.
J.F. Randolph,	Thomas A. Edison,
Secretary.	President.
	Thomas A. Edison.

F.W. Whitridge, Atty.	\$200,000.
F.S. Witherbee	5,000.
W.S. Pilling	50,000.
Thomas A. Edison	50,000.
Walter S. Mallory	10,000.
Wm. H. Shelmerdine	50,000.
Theron I. Crane	50,000.
Henry P. Brown	10,000.
James Gayley	25,000.
C.M. Schwab	25,000.
James Gaunt	5,000.
J. Wesley Allison	15,000.
Rich. N. Dyer	5,000.

ESB

Upon payment of each installment
called by the Co. bonds at par
shall be given for to the amount
paid ~~and~~ ^{to the holder of the bonds} ~~and an agreement meeting~~
^{it will within 3 years from the date of this agreement}
that the subscriber shall be

Entitled to 50% of the amount
of the bonds ^{then} issued to him in
~~the~~ stock of the Co which
stock is to be issued to said

^{in any event}
subscriber within three years
from the date of his ^{original} ~~present~~ ^{of}
subscription. ~~the amount paid in the bonds~~
~~amount paid in the bonds~~

~~In Case the entire amount~~
~~of subscribed amount called~~
by the Co within

~~In Case the Co~~

In Case the entire amount subscribed
is not called within 3 years
then, stock shall be issued
to the holders of the bonds
~~outstanding~~ according to ~~the~~ Clause B

AN INDENTURE made this day of , 1901
between EDISON STORAGE BATTERY COMPANY, a corporation organized under the laws of the State of New Jersey and having its principal office at West Orange, in the County of Essex in said state, of the first part; and FIDELITY TRUST COMPANY, a corporation organized under the laws of the State of New Jersey, having its principal office in the City of Newark, in the State of New Jersey, Trustee, of the second part:

WHEREAS, the party of the first part proposed to borrow the sum of \$500,000 for the purpose of erecting, establishing and installing a manufacturing plant and exploiting its business and to secure the payment of said sum of \$500,000, has determined to issue its bonds to the amount of \$500,000, being 500 bonds of the denomination of \$1,000 each, numbered from 1 to 500, both inclusive.

And Whereas, the directors of the party of the first part have by resolution, duly passed, authorized the execution of this mortgage and of the bonds hereinafter referred to for the purpose aforesaid to the amount of \$500,000, of the numbers and denomination above mentioned; which said bonds, with the coupons and certificate of Trustee attached are all substantially in the following form:

(Form of Bond)

United States of America

No....., State of New Jersey

Amount \$1,000.

Edison Storage Battery Company.

First Mortgage six per cent Gold Bond.

Know all Men by these Presents, That Edison Storage Battery Company, a corporation organized under the laws of the State of New Jersey, in consideration of the sum of one thousand

dollars received by it, acknowledges itself to be indebted to the bearer, or, if registered, to the registered holder hereof, in the sum of \$1,000, which sum it promises to pay to the lawful holder hereof in Gold Coin of the United States of America of the 1901 standard of weight and fineness at the office of Edison Storage Battery Company at West Orange aforesaid on the first day of July 1916, (or sooner as hereinafter provided) with interest thereon at the rate of six per cent per annum, payable in like gold coin at said office on the first day of January and July in each and every year on the presentation and surrender of the annexed coupons as they severally mature. And in case of two successive defaults or of two coexistent continuing defaults, although not successive, in the payment of the half yearly instalments of interest which shall have become payable, and which shall have been demanded by presentation of said coupons at said office, the principal of this bond shall become due in the manner and with the effect and subject to the conditions provided in the mortgage securing the payment of the same hereinafter mentioned.

The principal and interest of this bond are payable without any deduction for National, State, County or Municipal taxes, as in said mortgage provided.

This bond is one of a series of bonds of like date, tenor and effect aggregating \$500,000, numbered consecutively from 1 to 500, both inclusive, issued by the said Edison Storage Battery Company. The payment of each and all of said bonds so issued is equally secured without preference, priority or distinction as to the lien or otherwise of one bond over another, except as in the hereinafter mentioned mortgage provided, by a mortgage bearing even date herewith executed by the said Edison Storage Battery Company to Fidelity Trust Company as Trustee,

and conveying to it as Trustee all the property, assets and good-will of the said Edison Storage Battery Company owned or possessed by it at the date of said mortgage, and which it may thereafter acquire, as is more particularly described and set forth in said mortgage.

This bond, until registered, shall pass by delivery. It may, as to principal, be registered in the books of the said Edison Storage Battery Company to be kept at its office in West Orange aforesaid; and if so registered, will thereafter be transferable only upon the books of the said Edison Storage Battery Company by the owner in person or by attorney, unless the last preceding transfer shall have been to bearer, and the transfer by delivery thereby restored; and it shall be susceptible of successive registrations and transfers to bearer, at the option of the holders, but such registration shall not affect the negotiability of the annexed coupons.

This bond is subject to redemption at the sum of \$1,100 and interest as provided in said mortgage. It shall not be valid until it shall have been authenticated by a certificate, hereto annexed, duly signed by the Trustee under the said mortgage.

In Witness Whereof the said Edison Storage Battery Company has caused these presents to be signed by its President, and its corporate seal, duly attested by its Secretary to be hereto affixed, and has hereunto affixed coupons, with the name of its Treasurer engraved thereon, and has caused these presents to be dated the first day of 19 all at West Orange aforesaid.

.....President.

.....Secretary.

(L.S.)

(Coupon)

On the first day of January, 19 Edison Storage
Battery Company will pay to the bearer, at its office in West
Orange, New Jersey, thirty dollars in gold coin of the United
States of the 1901 standard of weight and fineness, being six
months interest on its first mortgage gold bond No.....
on the presentation and surrender of this coupon.

\$20.00

.....Treasurer.

(Trustee's Certificate)

Fidelity Trust Company hereby certifies that the within
bond is one of the series therein described, and that the same
is issued pursuant to the provisions of the mortgage therein
mentioned.

FIDELITY TRUST CO.

By.....2nd Vice President.

NOW, THEREFORE, THIS INSTRUMENT WITNESSETH that the said
party of the first part, for the better securing the payment
of the principal and interest of said bonds, according to the
true intent and meaning thereof, and for and in consideration
of the premises, and of the sum of one dollar to it in hand
paid by the party of the second part, the receipt whereof is
hereby acknowledged, hath granted, bargained, sold, aliened,
enfeoffed, conveyed and confirmed, and by these presents doth
grant, bargain, sell, alien, enfeoff, convey and confirm unto
the said party of the second part, as Trustee as aforesaid, and
its successors, all the following described property, viz:

First: All that tract or parcel of land and premises,
hereinafter particularly described, situate, lying and being in
the Borough of Glenridge in the County of Essex and State of
New Jersey.

BEGINNING in the north-easterly line of Bloomfield

Avenue at the easterly corner of property now or formerly of Mrs. M. Benson, which corner is also distant in said line of Bloomfield Avenue, three hundred and ninety one and sixty four one hundredths feet more or less westerly from the centre line of Verman Street; thence running along Bloomfield Avenue south twenty three degrees, thirty two minutes east, one hundred and sixty nine and sixty hundredths feet; thence north forty five degrees, twenty seven and one half minutes east, five hundred and forty and thirty five one hundredths feet more or less to the southerly line of Belleville Avenue; thence along the same the different courses thereof one hundred and thirty seven feet or more to the north-easterly corner of said Benson's land; thence along the same south forty eight degrees, five minutes west, four hundred and seventy two feet more or less to Bloomfield Avenue and place of BEGINNING.

Being the same premises conveyed to the party of the first part by Thomas A. Edison and wife by their deed dated July 11th, 1901, and recorded in the Register's Office of the County of Essex in book E-34 of Deeds for said County on pages 460 et seq.

Second: All the buildings and works now or hereafter thereon erected, and the machinery now or hereafter placed therein; also all machinery, tools, patterns, apparatus and implements of every kind used by the party of the first part in its business, and office furniture and fixtures; also all patents and patent rights now owned or hereafter to be acquired by party of the first part, including the inventions described in the following application for letters of the United States made by Thomas A. Edison.

(a) Letters Patent of the United States for improvement in reversible galvanic batteries, No. 678,722, granted on the 16th day of July 1901, to Thomas A. Edison.

(b) Application for Improvement in Reversible Galvanic Batteries, filed October 31, 1900, under Serial No. 34,094.

(c) Application for Improvement in Reversible Galvanic Batteries, filed October 31, 1900, under Serial No. 34,095.

(d) Application for Improvement in Reversible Galvanic Batteries, filed January 8, 1901, under Serial No. 42,814.

(e) Application for Improvement in Reversible Galvanic Batteries, filed March 2, 1901, under Serial No. 49,462.

(f) Application for Improvement in Reversible Galvanic Batteries, filed March 5, 1901, under Serial No. 49,934.

(g) Application for Improvement in Reversible Galvanic Batteries, filed March 8, 1901, under Serial No. 49,935.

(h) Application for Improvement in Depolarizers for Reversible Galvanic Batteries, filed May 9, 1901, under Serial No. 59,512.

(i) Application for Improvement in Electrodes for Galvanic Batteries, filed May 17, 1901, under Serial No. 60,401.

(j) Application for Improvement in Reversible Galvanic Batteries, filed June 20, 1901, under Serial No. 65,285.

(k) Application for Improvement in Reversible Galvanic Batteries, filed June 20, 1901, under Serial No. 65,286.

(l) Application for Improvement in Reversible Galvanic Batteries, filed June 20, 1901, under Serial No. 65,287.

(m) Application for Improvement in Reversible Galvanic Batteries, filed June 20, 1901, under Serial No. 65,288.

and the rights of the United States to all improvements made by Thomas A. Edison during the period of five years from the first day of February, 1901, upon the devices described in said applications, and on the manufacturing processes connected with the same, and the good will of the business of the party of the first part and all the property and property rights acquired

or to be acquired by the party of the first part; excepting however all machinery, tools, apparatus and manufactured stock sold in the ordinary course of business, and all earnings, profits and income lawfully used for the payment of dividends to stock holders or for the creation of a surplus.

To have and to hold all and singular the above granted and described premises and property real and personal, with the appurtenances thereto belonging unto the said party of the second part and its successors to the only proper use, benefit and behoof of the said party of the second part and its successors forever.

In trust, nevertheless, for the security of the person or persons who shall at any time be or become, the purchasers or owners of the said bonds or any part thereof.

Provided, however, if the said party of the first part, its successors or assigns, shall well and truly pay, or cause to be paid, the several sums of money in the several bonds hereinbefore mentioned, with the interest, according to the true intent and meaning of the said bonds, and each of them and of this mortgage; or, if the said bonds and the interest thereon shall become in any way fully paid or satisfied; or, if the said party of the first part, its successors or assigns, shall well and truly perform and observe all and singular the covenants, promises and conditions in the said bonds and coupons and in this indenture expressed to be kept and performed and observed by or on the part of the party of the first part; then these presents and the estates and rights hereby granted shall cease, determine and be void; otherwise these presents shall be and remain in full force.

And it is hereby further expressly understood, covenanted and agreed that at any time not less than forty days before the date when any coupons of the bonds hereby secured are payable

the party of the first part may elect to retire such bonds to an amount to be determined by the party of the first part, by a resolution of its Board of Directors, and that upon the passage of such resolution the party of the second part upon receiving a duly certified copy thereof not less than five days after its passage, shall forthwith draw by lot the serial numbers of so many of the said bonds secured by this mortgage as are determined to be retired as aforesaid, and that the principal of such bonds so drawn shall become due and payable on the said next day when said coupons are payable, in the same manner as if such bonds had matured according to the conditions thereof, and that on the presentation and surrender of said bonds, and all coupons thereof coming due after said day, at the office of the party of the first part in West Orange aforesaid, the principal of said bonds, together with ten per cent thereon additional as a premium for advanced payment, shall be paid to the lawful holder thereof; if any of the coupons of said bond thereafter falling due shall not be presented and surrendered with said bond, the amount of said coupon, less a rebate of interest at six per cent per annum shall be deducted from the amount payable on said bond. When the numbers of the said bonds shall have been drawn as aforesaid the party of the first part shall within five days thereafter send notice thereof by mail to the post office addresses of the holders of said bonds, if the same can be ascertained, and advertise for two weeks in at least one daily newspaper published in New York City, in Philadelphia, Pennsylvania and in Orange, New Jersey respectively the several numbers of the said bonds so to be retired, and the time and place where they will be paid. If any of the said bonds so drawn shall not be presented for payment at the place and on the day when the same are made payable as aforesaid, the party of the first part may deposit the amount hereby agreed to be paid on said bonds with

the party of the second part in trust for the lawful owner of such bonds, and such deposit shall be deemed to be a full performance of this covenant so far as said bonds are concerned, and a payment and satisfaction thereon, and the party of the first part shall be released and discharged from any further liability on account of said bonds and the coupons thereof thereafter to become due.

And it is further agreed that if any bond or coupon shall not be presented for payment at the office of the party of the first part in West Orange aforesaid and surrendered on the day that the same shall become due, either by its terms or on account of such drawing as aforesaid, the party of the first part may deposit with the party of the second part the amount due on said bond or coupon in trust for the lawful owner thereof, and such deposit shall be deemed to be a full payment and satisfaction of said bond or coupon within the true intent and meaning of this mortgage.

And it is hereby further expressly understood, covenanted and agreed, that the further trusts, uses, purposes, conditions and covenants for and upon which the property, real and personal, and rights hereinabove described are conveyed to, and are to be held by, the party of the second part, are as follows:

NUMBER ONE (1). So long as no default shall be made in the payment of the principal or interest, or any part thereof, payable upon the bonds hereby secured, as the same shall respectively become due and payable, or in the performance of the covenants herein contained to be performed by the party of the first part, the said party of the first part shall be suffered and permitted by the party of the second part to remain in full possession, enjoyment and control of all the property, real and personal, herein expressed to be hereby mortgaged, and shall be permitted to manage the same and receive the issue and pro-

fits thereof, with the right at all times, as the proper management of the business of the party of the first part may require, to alter, change, add to, repair, remove and replace the machinery, apparatus, fixtures and other appurtenances to the works and plants constructed or owned, or which shall be constructed or owned, by the party of the first part, and conveyed or intended to be conveyed hereby to the party of the second part, provided that the security of said bonds shall not thereby be in anywise reduced or impaired.

And the party of the first part shall have the further right at all times to convey or exchange, free from the incumbrances and trusts hereof, all or any of the real estate now held or hereafter acquired by the party of the first part, which shall no longer be either useful or necessary in the proper and judicious management and maintenance of the business of the party of the first part or of the property hereby conveyed, but in no case shall any sale or other disposition of such real estate be made without the express assent, in writing, of the party of the second part, and it is hereby expressly authorized to release from the operation and effect of this mortgage any property so sold or exchanged, whether the consideration of such sale be wholly cash, or partly cash and partly secured by mortgage on the premises sold. But the property taken in exchange, if such there be, shall forthwith become and be liable under this mortgage as if the same had been originally included herein, and the net proceeds of real estate so released (if sold) shall be applied by the party of the first part, in good faith, to the betterment or extension of the plants owned or controlled by it.

NUMBER TWO (2). That the party of the first part its successors and assigns, shall and will, on demand, in writing, of the party of the second part, at any time, make, do, execute,

acknowledge and deliver all such further acts, deeds and assurances in the law as may be reasonably advised or required of it for effectuating the intention of these presents and for the better assuring and confirming unto the party of the second part and its successors upon the trusts and for the purposes herein expressed, all and singularly, the property, appurtenances and rights hereby mortgaged, whether now owned or possessed or hereafter acquired by said party of the first part, its successors and assigns.

WHEREAS THEREOF (3). That the party of the first part shall not apply for or claim any deduction by reason of this mortgage from the taxable value of the lands and real estate embraced in this mortgage, and that, until the bonds hereby secured be fully paid and satisfied, the party of the first part shall and will, from time to time, as the same shall become due and payable, pay, or cause to be paid, to the person or persons authorized to collect and receive the same, all taxes, assessments and other impositions which may, at any time hereafter, be lawfully assessed, levied, imposed or charged upon the said lands and premises and property, or any part thereof, payable by them respectively, or upon the party of the first part in respect thereof, and shall and will pay the principal and interest on the bonds secured by this mortgage without deduction for any tax or taxes that may be hereafter imposed thereon or on this mortgage by the laws of the State of New Jersey for state or municipal purposes, or by the laws of the United States for national purposes, which the said party of the first part may be required by the laws of said State or of the United States to retain therefrom; and shall and will, when thereunto requested, provide and show to the party of the second part proper receipts and vouchers therefor; and that it will not suffer any judgment, lien or execution to remain outstanding upon, or

to be levied upon, any of its property, whereby the lien hereof might or could be impaired, or in any manner render itself liable to any suit or proceedings for dissolution, or proceedings in bankruptcy or insolvency. The party of the first part shall and will, also, and at all times, so long as any of the bonds hereby secured are outstanding and unpaid, keep the buildings, machinery and appurtenances, and all perishable personal property, hereby mortgaged or intended so to be, fully insured in and by responsible insurance companies, against loss or damage by fire, explosion or by the elements, and pay all premiums upon the insurance policies; all losses, if any, under any such policies of insurance, to be payable to the party of the second part hereunder for the benefit of the several holders of the bonds hereby secured, and may be used by or with the consent of said party of the second part in repairing or replacing the property so damaged or destroyed, or expended for the betterment of the plants.

NUMBER FOUR (4). If the party of the first part, its successors or assigns, shall at any time hereafter make default or refuse or neglect or omit, for three months after the same shall fall due and be demanded, to pay any half yearly instalment of interest payable upon the bonds, or any of them, intended to be hereby secured, or shall make default, or refuse, neglect or omit, for three months after the same shall fall due and be demanded, to pay the principal sum of each and all of said bonds, or shall fail to pay within three months after the same shall become legally due and payable by it all taxes, rates, levies, assessments and liens above mentioned, or shall claim or apply for any deduction from the taxable value of the lands and premises or personal property embraced in this mortgage, or any part thereof, then, and in either such case, the party of the second part, personally or by its attorney or

attorneys, agent or agents, may forthwith enter into and upon and take possession and control of all and singular the properties, rights and premises herein expressed to be hereby mortgaged, with all the records, books, papers and accounts of the party of the first part and each and every part thereof, and exclude the said party of the first part and its agents wholly therefrom, and have, hold and use the same, operating by its superintendents, managers, agents, receivers, servants, or other agents or attorneys, the said manufacturing plant and business, and conducting the business and operations thereof, and making from time to time all repairs and replacements and such useful additions, alterations and improvements thereto and thereof as to the party of the second part may seem judicious, and collect and receive all earnings, profits, revenues and income of the same and every part thereof, and, after deducting the expense of operating the said works and conducting said business, and all the said repairs, replacements, additions, alterations and improvements, and all payments which may be made for taxes and assessments, charges and other liens prior to the lien of these presents upon the said lands, property or premises, or any part thereof, as well as a just compensation to the party of the second part, its agents, attorneys and counsel, shall apply the remainder of the moneys so received by them as follows: In case the principal moneys secured by such bonds shall not have become due to the payment of the interest remaining in default in the order of the maturity of the instalments of such interest; in case the said principal moneys or any of them shall have become due, to the payment of the principal and accrued interest upon such bonds, the principal moneys of which shall have become due, pro rata, without any preference or priority whatever.

NUMBER FIVE (5) In case two successive defaults shall

be made in the payment of any instalment of interest upon the bonds secured hereby, or any of them, or if two defaults, although not successive, in such payments shall exist at the same time, either by the party of the first part or by the party of the second part, in possession under the provisions of the last preceding paragraph, or in case the party of the first part shall claim or apply for any deduction from the taxable value of the lands and premises or personal property embraced in this mortgage, or any part thereof, or in case the party of the first part shall make default in the performance of any of the other provisions of these presents, then, and in such case, if the holders of one-third in value of the outstanding bonds hereby secured shall so elect, in writing, the whole principal of all the bonds hereby secured shall thereupon be declared by the party of the second part to be, and shall immediately become due and payable, and it shall be the duty of the party of the second part, upon request in writing, signed by the holders of one-third in value of said bonds then outstanding, and upon being indemnified to its satisfaction, to institute proper proceedings at law or in equity to enforce the lien hereby created, and cause the said property to be taken in execution and sold under proper process for the payment of the debt, principal and interest hereby secured, or the party of the second part may, upon the like request and indemnity, enter upon and take possession of all of said property, real and personal, rights and good will herein expressed to be hereby mortgaged, and proceed to sell the same, or so much thereof as may be necessary, to the highest and best bidder at public sale at the Court House in the said City of Newark, first having given at least four weeks notice of the time, place and terms of such intended sale by publication of such notice once a week during said four weeks in at least one newspaper of

general circulation, published in each of the following cities, viz: in the City of New York and the City of Philadelphia, and upon such sale shall, by proper assurance in law, convey, transfer and deliver possession of the property, real and personal, rights and good will so sold, to the purchaser or purchasers, freed and discharged from the trusts hereby created; which sale or sales shall be a perpetual bar, both in law and in equity, against the party of the first part and its successors, and all persons and corporations lawfully claiming, or to claim, by, through, or under it; and upon the making of any such sale the party of the second part shall apply the proceeds of such sale or sales, as follows, to wit: First, to the payment of the costs and expenses of such sales, including a reasonable compensation to the party of the second part, its agents, attorneys and counsel, and all expenses, liabilities and advances made and incurred by the party of the second part in managing and maintaining the works, equipment and other property herein expressed to be mortgaged, and all taxes, assessments and liens prior to the lien of these presents; second, to the payment of the whole amount of principal and interest which shall then be owing or unpaid upon the said bonds, or any of them, whether the said principal be then due or yet to become due; and, in case of the insufficiency of such proceeds to pay in full the whole amount of principal and interest owing or unpaid upon the said bonds, they shall be paid ratably in proportion to the amounts owing and unpaid upon them respectively, without preference of one bond over any of the others; Third, to pay over the surplus, if any, on demand, to whomever may be lawfully entitled to receive the same by the judgment of some court of competent jurisdiction.

NUMBER SIX (6) It is hereby declared and agreed by and between the parties hereto that it shall be the duty of,

and it is hereby made obligatory upon, the party of the second part, on being requested as to do, in manner as hereinafter provided, by the holder or holders of one-third in value of the bonds at the time outstanding and on being indemnified to their satisfaction, to take all needful steps which may be requisite to protect the rights of the holders of bonds secured hereby.

The requests hereby provided for shall be by an instrument or concurrent instruments in writing, signed by such bond holder or bond holders, or by his or their attorney or attorneys in fact, duly authorized for that purpose, and upon such requests (accompanied by indemnity to the satisfaction of the party of the second part as aforesaid) the party of the second part shall proceed forthwith to enforce the rights of the party of the second part and of the bondholders under these presents, by sale or entry, or both, or by judicial proceedings, according to such requisitions; provided that in the meantime, and until such requisition by one-third of the bond holders shall have been made as above provided, the party of the second part shall have full power and authority to commence and prosecute such proceedings at law or in equity, from time to time, as they may deem necessary or proper for the due protection or enforcement of the rights of the bondholders or any of them under these presents.

SECTION SEVEN (7). Upon a filing of a bill in equity, or other commencement of judicial proceedings to enforce the rights of the party of the second part and of the bondholders under these presents, the party of the second part shall be entitled to the appointment by any court of competent jurisdiction of a receiver or receivers of the property hereby mortgaged, and of the earnings, income, rents, issues and profits thereof, pending such proceedings, with such powers as the court making such appointment shall confer, (including the power to issue receiver's certificates, the lien of which shall be prior to the lien

of this mortgage).

NUMBER EIGHT (8) The party of the second part may, and upon the request of the party of the first part, and upon receiving all reimbursement and compensation to which it may be entitled, shall cancel and discharge the lien of these presents, and execute and deliver to the party of the first part such deeds of discharge as shall be requisite to discharge the lien hereof, and reconvey to or regrant in the party of the first part the estate and title hereby conveyed or intended to be whenever all the bonds and coupons secured hereby, which shall have been duly issued, shall be paid and cancelled or destroyed; which cancellation or destruction shall take place in the presence of representatives, duly appointed, on behalf of the party of the first part and of the party of the second part, and, upon receiving their certification of the fact, it shall be the duty of the party of the second part to discharge said lien of record. And if, at any time the party of the first part shall become the holder and owner of all said bonds and shall present the same to the party of the second part and request their cancellation and the discharge of the lien of these presents, the party of the second part, upon proper reimbursement and compensation as aforesaid, shall cancel or destroy the same in the manner above in this article provided, and shall discharge said lien of record.

NUMBER NINE (9) And it is hereby understood and agreed and this trust is accepted upon the express condition that the party of the second part shall not incur any liability or responsibility whatever in consequence of permitting or suffering the party of the first part to retain or be in possession of the estate and premises hereby mortgaged, or agreed or intended so to be, or any part thereof, and to use

and enjoy the same; nor shall the party of the second part be in any way responsible for the consequence of any breach on the part of the party of the first part, of any of the covenants herein contained, or of any act of said party of the first part or its agents or servants; nor shall the said Trustee be or become liable or responsible for any cause, matter or thing, except its own gross negligence or willful default in the trusts herein expressed and contained. The party of the second part shall be under no obligation or duty to perform any act hereunder or to defend any suit in respect hereof, unless indemnified to their satisfaction; nor shall the party of the second part be bound to recognize any person as a bondholder until his bonds are submitted to the party of the second part for inspection, if required, and his title satisfactorily established, if disputed; nor is the party of the second part to be responsible for any recital or statement of fact herein contained.

IN WITNESS WHEREOF, the said party of the first part and the party of the second part have caused these presents to be sealed with their respective corporate seals, and to be signed by their respective Presidents and attested by their respective Secretaries on the day and year first aforesaid.

Signed, sealed and delivered in the presence of :

[CA. 1908]

file
TO THE STOCKHOLDERS OF THE EDISON STORAGE BATTERY CO. *142*

After the incorporation of the company in May, 1901, considerable experimental work was required in connection with the development of the battery, so that actual commercial manufacture was not started until January, 1903, at the plant in Glen Ridge, which had been purchased for the purpose. Subsequently the Glen Ridge plant was shut down and a new up-to-date and very much larger factory was constructed at Orange. Some difficulty was experienced in connection with the cells which were put out, due to the fact that leaks developed in the cans, but this was overcome by providing the cans with welded seams. Actual commercial experience developed the fact that the Type "R" cells made at the Glen Ridge plant showed a loss of capacity due to the swelling of the pockets in the positive plates, and because of this trouble the Glen Ridge plant was shut down on November 1, 1904, at which time we were turning out about 200 cells per week. Up to the time of that shut-down we had manufactured the equivalent of 37,068 "R-18" cells and the equivalent of 18,980 "E-18" cells replacement. A replacement cell is one in which we use everything of the old cell except the positive plate, the customers returning the old cells to us. From November, 1904, until October, 1908, experiments have been continuously made, and the difficulty of the swelling of the pockets in the positive plates is believed to have been overcome by the use of cylindrical tubes instead of flat pockets. By this change I have every reason to believe that the life of the new cell will be from two to three times that of the old type "R" cell, while the average life of the "E" type cell in commercial vehicles operated by firms having a large number of vehicles in use has been from two to three years, depending on the care

(2)

the batteries have received. The manufacture of the new battery is being actively prosecuted and the outlook for the business is good, since there is undoubtedly an enormous field for storage batteries outside of trucks and vehicles--fields that may be added where the lead battery has failed completely, such as car-lighting, marine launches, submarine work, street cars and sparking batteries for gasoline engines.

At the present time we have over 260 commercial delivery wagons operated with Edison batteries of the old type and in every instance the user has obtained better results than could possibly have been secured from the lead cell. Some of the prominent users of the Edison batteries in New York City are the following:

Adams Express Co.	Geo. Rhret Brewery
United States Express Co.	New York Telephone Co.
Tiffany & Co.	Lewandos French Dyeing & Cleansing Co.
R. H. Macy & Co.	A. G. Hyde & Co.
W. & J. Gloane	New York Dock Co.
James A. Hearn & Son	Twentieth Century Auto Touring Co.
A. A. Vantine & Co.	Firestone Tire & Rubber Co.
Aitken Son & Co.	Lidgerwood Mfg. Co.

A considerable ^{number} of automobile manufacturers have signified their intention to adopt the Edison battery as soon as we are in position to furnish them, and among these prospective users are the following:

General Vehicle Co.	Detroit Electric Co.
Commercial Truck Co.	Rausch & Lang Carriage Co.
Studebaker Automobile Co.	Champion Wagon Co.
Baker Motor Vehicle Co.	Pittsburgh Motor Vehicle Co.

(8)

Waverly Automobile Co.	Oliver P. Fritchle, Denver, Col.
Couple Gear Freight Wheel Co.	Woods Motor Vehicle Co., Chicago
S. R. Bailey & Co.	Anderson Carriage Co., Milwaukee
Columbus Buggy Co.	James McNaughton Co.

In conclusion I wish to impress upon the stockholders the fact that practically all the work that has so far been done has been experimental in character, but I believe the results which will be achieved will more than justify the expense and that the Edison battery will be a very great commercial success.

Respectfully submitted.

President.

ESBC Bonds
THOMAS A. EDISON
President

FRANK L. DYER
Vice-President and General Counsel

E. G. DODGE
General Manager

H. F. MILLER
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

Telephone, 908 Orange

ORANGE, NEW JERSEY July 21, 1910.

Mr. Thomas A. Edison.
Orange, N. J.

Dear Sir:-

*Having
Keep me from
going away
Them 5/21/10*

A special meeting of the Stockholders of the Edison Storage Battery Company will be held July 27th, 1910, at the office of the Company, Lakeside Ave. & Valley Road, West Orange, New Jersey, at 11 A. M., for the purpose of determining a method for liquidating the account of Thomas A. Edison with this Company, and for such other matters as may be brought before the meeting.

Yours truly,

H. F. Miller
Secretary.

*Submitted to Stockholders
at meeting July 24th 1910 H. F. Miller*

TO THE STOCKHOLDERS OF THE EDISON STORAGE BATTERY COMPANY:

Secretary

The essential purpose of the present meeting is to discuss ways and means for the liquidation of Mr. Edison's account against the Edison Storage Battery Company and to agree upon a plan for doing so.

Mr. Edison personally controls more than 75% of the capital stock of the company and could therefore decide the question himself, and his decision in the matter could be questioned only in case of fraud. Nevertheless, he desires to have the situation laid before all of the stockholders in order that he may have the benefit of their advice even though in justice to himself he may not be able to agree with their views. The stockholders may, however, be reminded of the fact that all of the outside stock, ^{except 500 shares} amounting to 25% of the total, was presented by Mr. Edison as a bonus in connection with the sale of the bonds of the company and does not represent money invested, at least by the original outside stockholders. So far as the bonds of the Company are concerned, knowing as we do the perfected condition of the Edison battery and the great demand it must inevitably have, there is no reason for the slightest uneasiness or doubt as to the value of these securities.

The experimental development of the Edison Storage Battery involved such enormous difficulties that if Mr. Edison had had any idea as to their extent he probably would not have undertaken the work. When the original bond issue was made, by which a cash capital of \$500,000 was provided, Mr. Edison felt confident that that capital would be sufficient to conduct all

(2)

experiments and put the battery on the market as a commercial proposition. It is not necessary to refer to the extent of these experiments except to say that they numbered many thousands. As is well known, the first form of battery that was put on the market developed defects which were not anticipated, and, although that battery was superior to any competing device, it did not realize Mr. Edison's expectations, and it was therefore withdrawn and its manufacture stopped, except to the extent of making replacements. Following the withdrawal of the first type of battery from the market, a greater number of experiments were made, resulting in the production of the present perfected Edison Battery, which has now been manufactured and sold for about a year and which has more than realized Mr. Edison's most ardent hopes. The introduction of the new battery has no doubt been somewhat affected by the unfortunate experience with the earlier type; and by the very vigorous and in some cases questionable methods of the Lead Battery people to prevent its introduction. Furthermore, most of the electric vehicles made in this country were especially designed for lead batteries and required modifications to fit them most effectively for Edison batteries; and, finally, we found that many of the vehicle manufacturers were bound by contracts to use lead batteries only, but these contracts are now expiring and none, we believe, runs beyond the present year. I am glad to say, however, that the demand for the new battery is slowly increasing, electric vehicle manufacturers and other users are recognizing its merits and are designing their present models for its use. At the present time the output of the factory is equivalent to about 150 A-4 cells per day, all of which are being sold, and the interest

(3)

which is being manifested on all sides in the battery convinces us that the demand will very largely increase within a short time. Even at the rate of 150 A-4 cells per day, the factory is almost able to pay its operating and selling expenses, including the cost of manufacture, so that with an increase in the business profitable results may be expected.

At the present time, therefore, the situation of the Edison Storage Battery Company is that it is in possession of a perfected storage battery with all the patents thereon, with secret processes at its command and with a tremendous experience that has been acquired during the past nine years together also with a plant fully equipped to turn out the batteries at a sufficient rate to make the business a profitable one as soon as the demand slightly increases. As to the ultimate success of the enterprise we do not entertain the slightest doubt.

The expense in connection with the development of the perfected battery up to the present point, including experiments and plant with its equipment and for carrying on the business since the introduction of the battery about a year ago, has been upwards of \$2,500,000, as appears from the report of Messrs. Lybrand, Ross Bros. & Montgomery, certified public accountants, for the year ending February 28, 1910. On that date the Edison Storage Battery Company owed Mr. Edison \$1,544,743.29 on open account for money advanced by Mr. Edison to carry the enterprise on and eventually to realize something for the stockholders. Since that date the amount has increased somewhat, so that on June 30, 1910, with interest, it was \$1,908,276.86. The question now for consideration is, how shall this account be liquidated? Two plans have been suggested tentatively by Mr.

(4)

Edison, either one of which he is willing to accept.

(1) The Company might give interest bearing notes to Mr. Edison for the amount of the indebtedness, payable in two or three years from date.

(2) The capital stock of the Company might be increased by an additional issue of \$2,500,000 and his debt liquidated by paying stock at par.

We put these plans before the stockholders in order that they may be discussed by them.

Respectfully submitted,

Frank L. Row
Vice-President.

FLB/T

ESBC - Bond

THOMAS A. EDISON
President

FRANK L. DYER
Vice-President and General Counsel

E. G. DODGE
General Manager

H. F. MILLER
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

Telephone, 908 Orange

Harry
ORANGE, NEW JERSEY

September 22, 1910

*Thos. A. Edison Esq.
Orange N.J.*

*I don't understand this
we already had the
meeting -*

The Board of Directors of the Edison Storage Battery Company,
a corporation of New Jersey, on the 16th day of September, 1910, do hereby
resolve and declare that it is advisable that the capital stock of said
company be increased from \$1,000,000 to \$3,500,000, said additional stock
to be like in all respects the present stock of said company. And they
hereby call a meeting of the stockholders to be held at the company's office,
corner of Valley Road and Lakeside Avenue, West Orange, N. J., on Tuesday,
the 4th day of October, 1910, at eleven o'clock A. M., to take action upon the
above resolution.

Attest

H. F. Miller

Secretary.

[ATTACHMENT]

Mr Edison

We held a meeting of stockholders on July 27th to give them an opportunity to decide which of two plans for settling your account was the most desirable and they chose to give you stock as far for your claim authorizing the officers to increase the Capital stock from \$1,000,000 to \$3,500,000 for that purpose.

Then the directors met Sept 16th to carry out the instructions of the stockholders and having done so the laws of New Jersey require that the stockholders confirm the action of the directors. As I understand it this final meeting is to make the transaction legal i.e. in accordance with the statutes.

H. F. M.

THOMAS A. EDISON
President

FRANK L. DYER
Vice-President and General Counsel

E. G. DODGE
General Manager

H. F. MILLER
Secretary-Treasurer

Telephone, 908 Orange.

ORANGE, NEW JERSEY

In your reply please refer to

File No.

Mr. C. E. Nestor,
Shreve Building,
San Francisco, Calif.

RE: HANDLING THE EDISON BATTERY ON THE
PACIFIC COAST.

Dear Sir:

It is against Mr. Edison's policy to grant the exclusive right to anyone to handle any of his products in any particular territory. We would, however, allow you to handle the Edison battery on the Pacific Coast, and, so long as you gave the business your personal attention, and pushed it hard in other words, being a live wire and showing initiative, we will refrain from looking for someone else or allowing anyone else, to handle it in that territory.

If you buy automobiles and chassis suitable and fitted for Edison batteries, but without the battery equipment, we will allow you 20% discount from the list price, with an additional 2% for cash in ten days, f.o.b. Orange, N.J., with the understanding that you always carry a suitable stock of each size of cell in San Francisco; and that you also try to replace lead batteries in automobiles now being operated ~~xxx~~ on the Coast.

The above arrangement does not refer to the sparking battery. This being an accessory we feel that any garage or supply house should have the privilege of carrying them in stock if they wish to do so.

Any inquiries we receive from the Pacific Coast for the "A" type of cells we will refer to you. ~~This territory is to extend as far south as Los Angeles for the time being.~~ *California are we covering the state fully*

Very truly yours,
EDISON STORAGE BATTERY COMPANY

WGB.HRL

MANAGER OF SALES.

This agreement entered into this *fourteenth*
day of *January*, 1912, by and between the Hartford Electric
Light Company, a Connecticut corporation; The General Vehicle
Company, a New York corporation; and the Edison Storage Battery
Company, a New Jersey corporation; hereinafter referred to as
the Light Company, the Vehicle Company and the Battery Company,
respectively, WITNESSETH:

WHEREAS, the Light Company is in the business of gen-
erating and selling electric current to the public; the Vehicle
Company is in the business of making and selling electric ve-
hicles; and the Battery Company is in the business of making and
selling electrical storage batteries, covered by letters patent
of the United States; and

WHEREAS, it is believed by all the parties hereto that
the general adoption of the electric vehicle for purposes of trans-
portation would be greatly facilitated, (a) if the purchaser's
initial investment is reduced to a minimum, and (b) if the purchas-
er can be relieved of the battery charging and of the care of the
battery for such vehicles; and

WHEREAS, the parties hereto also believe that the above
purpose can be realized under the following arrangement, namely:

- 1 - By offering the public, at a price minus the charge for
the battery, a class of electric vehicles especially designed to
be operated by a certain type of storage battery, thereby reducing
the purchaser's investment to a minimum;
- 2 - By supplying for such vehicles, and installing therein,
their proper equipment of charged storage batteries, on the basis
of a charge for the service rendered, thus relieving the purchaser
of the necessity of maintaining and charging said batteries; and

WHEREAS, the Vehicle Company, with the view of increas-
ing its business, has designed and is willing to construct and sell

Attest by Mr. Quinn -

to the public, minus the battery, a line of electrical vehicles for business purposes especially designed, electrically and mechanically, to be operated by the Edison storage battery; and so arranged that the battery equipment thereof can be exchanged in a few minutes; and

WHEREAS, a plan has been proposed for an "Edison Battery-Service System," in the City of Hartford, whereby the users of vehicles so constructed as aforesaid may obtain from the Light Company the continuous use of Edison storage battery equipment, paying therefor on the basis of service rendered, the Light Company owning, charging and maintaining a stock of such batteries and exchanging discharged or partly discharged sets of batteries for charged ones as the exigencies of the business may require; and

WHEREAS, the Light Company is desirous of encouraging the use of such vehicles in the City of Hartford by means of the Edison Battery-Service System, and to this end is willing to establish and operate a special department for the sale of its current for operating such electric vehicles by means of the Edison Battery-Service System, and for this purpose to carry a stock of such batteries, the same to be owned, charged, maintained and exchanged as aforesaid by the Light Company, if it can be assured of exclusive rights in regard thereto in the City of Hartford; and

WHEREAS, the Battery Company is desirous of facilitating the inauguration of such a system for the purpose of advancing the adoption of electric vehicle transportation, especially for the reason that in such a system its batteries would be in the hands of experts, and because the Vehicle Company has improved the electrical and mechanical parts of its vehicles to adapt them especially for using the Edison storage battery; and

WHEREAS, the Battery Company, in view of those facts is willing to grant to the Light Company the exclusive license for the City of Hartford for the use of the Edison Storage Battery in the

manner above contemplated, provided that such batteries as the Light Company shall purchase from time to time be continuously owned and rented by the Light Company and used only in the vehicles made as aforesaid by the Vehicle Company, and in such vehicles made by others and not operated for business purposes, in which the Battery Company may authorize the Light Company to use the same.

NOW, in consideration of the premises, and in further consideration of the sum of One Dollar in hand paid by each of the parties hereto to the other, the receipt of which is hereby acknowledged, the parties hereto hereby mutually agree with each other as follows, to wit:

FIRST: That the Vehicle Company will manufacture a line of electrically driven commercial vehicles, that is, vehicles to be used for business purposes, especially designed and adapted electrically and mechanically, to be operated with the Edison storage battery as it is made at the date of this agreement, it being understood that the design of such vehicles shall include such special and necessary mechanical and electrical appliances and arrangements for carrying the batteries and to facilitate connecting and disconnecting them, and to facilitate loading and unloading the same as will enable such vehicles to be readily and rapidly equipped with batteries by the Light Company in the manner herein contemplated; it being further understood that the Vehicle Company will equip its vehicles with the electric and mechanical appliances specified in Schedule A, hereto annexed.

SECOND: The Battery Company will, in connection with the sale of its batteries to the Light Company under this agreement, make a guarantee in the attached form, which guarantee shall be effective and binding only in regard to batteries used in vehicles constructed by the Vehicle Company in accordance with the provisions of the next preceding section, and also if the Light Company charges and maintains the batteries according to the instructions of the

Battery Company, and also if such batteries are used only in the said vehicles made by the Vehicle Company, it being understood that the controlling consideration hereof, (without which neither this agreement nor guarantee would have been entered into or given by the Battery Company) is the fact that the Vehicle Company has designed its vehicles to especially adapt them electrically and mechanically to the use of the Edison battery, which design has been approved by the Battery Company.

THIRD: The Vehicle Company, when selling its vehicles without battery as herein contemplated for use in the City of Hartford, agrees to sell the same at prices which shall be as low as the equivalent of its regular complete-unit prices for such vehicles as they may be from time to time minus the price at which the proper equipment of battery is included in such complete price in each case, it being understood that the Vehicle Company will use diligence and continuous endeavor to introduce and sell its said vehicles in Hartford for the use and operation in the manner above indicated.

FOURTH: The Vehicle Company is not hereby deprived of nor limited in its right to sell in Hartford, or elsewhere, its vehicles without batteries, or complete with batteries, nor to purchase, use and sell batteries other than those of the Battery Company, but it agrees to advocate only Edison batteries for use on a Battery-Service System in the City of Hartford.

FIFTH: The Battery Company agrees to license and does hereby grant to the Light Company an exclusive license under its patents and patents to issue on pending applications to use the Edison storage battery within the limits of the City of Hartford, State of Connecticut, for the purpose of conducting a business of selling current to operate the said electric vehicles of the Vehicle Company through the medium of said Edison Battery-Service System as contemplated in this agreement.

SIXTH: The exclusive license hereby granted to the Light Company is granted on the following conditions, which are hereby accepted by the Light Company, namely:

(1) That the Edison Storage Battery shall be installed and used as aforesaid only on such electric vehicles made by the Vehicle Company, but the Vehicle Company consents to the extension of this license by the Battery Company so as to permit the Light Company to use said batteries on electric vehicles made by others and not operated for business purposes.

(2) That the Light Company shall continuously own, charge and maintain the batteries purchased by it under this agreement for conducting said business.

(3) That the Light Company shall erect, utilize or rent proper buildings for the conduct of said business, and shall furnish the same with all such facilities for the charging and exchanging of said batteries as the nature of the business shall demand in order to carry out the intent of this agreement, and it agrees that it shall charge and exchange and lease said batteries as herein contemplated.

(4) That the Light Company shall purchase from the Battery Company from time to time at prices equal to list price less 15% discount, a sufficient quantity of said vehicle storage batteries to enable it to fully supply the demand for current for said batteries operated on said system in said vehicles; and also agrees to supply such a demand; and shall exercise due diligence in caring for and maintaining such batteries in the manner stated in the instructions of the Battery Company and according to any additional reasonable instructions hereafter issued by the Battery Company and delivered to the Light Company, to the end

that the Battery Company shall not suffer damage by neglect or carelessness or be thereby prevented from carrying out its guarantee as to the life of the batteries. The Battery Company agrees that at all times the cash sale price of a new vehicle-battery, as distinguished from an exchange transaction, shall be 5% less than that at which the Battery Company regularly sells vehicle-batteries to Central Stations, Power Companies, or Garages for other uses than the Edison Battery-Service System.

(5) That during the continuance of this agreement, and so long as the Battery Company shall fulfill the guarantee above given, the Light Company shall not sell its current for operating electric vehicles in the manner herein contemplated, that is, by a Battery-Service System, except through the Edison Storage Battery and in vehicles made by the Vehicle Company, and in such vehicles made by others and not operated for business purposes, in which the Battery Company may authorize the Light Company to use the same; it being understood, however, that nothing herein contained shall be construed to prevent the Light Company from selling its current to charge any storage batteries in vehicles of any kinds and makes, where such batteries are not operated on a Battery Service System.

It being also understood that nothing herein contained shall be construed to prevent the Light Company from selling its current at its regular rates to any customer who demands the same in accordance with the terms of the company's franchise, and under the laws of the State of Connecticut.

(6) That the Light Company shall inaugurate the said business within sixty days from the date hereof or as soon as there shall exist, or the Light Company can create, a demand for said service.

SEVENTH: The Battery Company reserves to itself the right to sell its batteries to any manufacturer of electric ve-

hicles to be sold with such vehicles to the public in open market, but it hereby agrees not to sell its batteries to any person or Company other than the Light Company, for the purpose of selling current to the public in Hartford through such batteries for operating vehicles as contemplated herein, this particular class of business in said City of Hartford; namely, the Edison Battery-Service System, being hereby exclusively licensed to the Light Company during the continuance of this agreement.

EIGHTH: WHEREAS, the Battery Company may hereafter grant to others than the Light Company similar licenses for use of its storage battery for the "Edison Battery-Service System" in other cities; and

WHEREAS, vehicles made by the Vehicle Company and equipped by such other licensees may in the course of travel be passing through Hartford and require renewal of charged battery equipment.

It is understood and agreed that in such cases the Light Company shall have the privilege, in its discretion, to make the necessary exchange of Edison battery equipment in any such vehicles, and in doing so shall not be deemed to have violated any provision of this agreement.

NINTH: Unless sooner terminated by mutual consent of all the parties hereto, this agreement and license shall remain in force for the period of five years from date hereof, and shall continue thereafter from year to year unless written notice of cancellation shall be given by any one of the parties hereto to the other parties at least ninety days before the expiration of any yearly period; if such notice is given this agreement shall terminate at the expiration of the yearly period next following the date of the notice and if thereafter the Light Company uses the batteries purchased hereunder, in vehicles other than those made by the Vehicle Company or in a manner other than that specified in the Battery

Company's instructions the guarantee as to life, above referred to, shall terminate.

TENTH: This agreement is binding upon and shall enure to the benefit of the parties hereto and their several successors in business.

ELEVENTH: The territory referred to herein as the "City of Hartford" shall be construed to include all cities or towns to which the Light Company, at present or during the life of this agreement, supplies current through its circuits for lighting and power purposes, provided that no cities nor towns, in which there shall have been granted to others, rights similar to those herein granted, shall be included within this contract.

The territory now included consists of the following cities or towns:

Hartford; East Hartford; West Hartford; Bloomfield;
Tariffville; East Granby; Simsbury; Windsor; Burn-
side; Wethersfield; and Rocky Hill; all of the above
in the State of Connecticut.

IN WITNESS WHEREOF, the parties hereto have respectively caused these presents to be executed and their respective corporate seals to be hereunto attached by their proper officers thereunto duly authorized.

EDISON STORAGE BATTERY COMPANY,

By

Witness:

HARTFORD MENOMONIE LIGHT COMPANY,

By

Witness:

GENERAL VEHICLE COMPANY,

By

Witness:

S C H E D U L E "A"

FIRST: The special trucks for the Battery-Service System shall be so constructed and provided with such fittings that the batteries can be put in or taken from the vehicles without disturbing the individual units, to the end that the great number of removals over the guaranteed life will not tend to injure the battery mechanically.

SECOND: The truck when fully loaded and moving on a six percent (6%) grade shall not have a greater drop of voltage on the wiring carrying the current than two and one-half (2-1/2) volts with a sixty (60) cell battery.

THIRD: The battery box shall be so constructed that it will be closed in the winter to prevent low temperature from affecting the discharge rate of the battery.

EDISON STORAGE BATTERY COMPANY GUARANTEE
Under EDISON BATTERY-SERVICE SYSTEM.

The Edison Storage Battery Company agrees to and hereby does guarantee all Edison Storage Batteries furnished the Light Company under the terms of this agreement, as follows; provided that the batteries and the renewals thereof herein mentioned are used exclusively in vehicles manufactured by the General Vehicle Company, Long Island City, N. Y.; and provided that the batteries are operated by the Light Company in accordance with the instructions furnished by the Edison Storage Battery Company.

The Battery Company guarantees that the life of any battery with one renewal thereof shall be ten years.

The price of the original battery shall be the price determined by the contract - the price of renewals shall be list price, less 25% discount. In case a second renewal is required, the probable excess of life over the ten-year period shall be estimated based on the average life of the original battery and first renewal, and the Light Company shall pay the Battery Company for such estimated excess life on a pro rata basis.

On making renewals, all old batteries or battery material shall be the property of the Edison Storage Battery Company. All prices f.o.b. factory.

This guarantee excludes all renewals required by reason of accident, misuse, or abuse. All expense of maintaining crates and the renewal of electrolyte is also excluded from this guarantee.

It is agreed that the Edison Battery Company shall have the opportunity to inspect the batteries at all reasonable times.

This guarantee is contingent upon conditions of credit being satisfactory at all times.

No battery is to be renewed hereunder until its capacity has fallen to a point where it is incapable of giving ninety per cent. (90%) of its rated capacity in kilowatt hours.

The rated kilowatt hour capacity of each cell is given below:

A - 4	-----	.180 K.W.H.
A - 6	-----	.270 K.W.H.
A - 8	-----	.360 K.W.H.
A - 10	-----	.450 K.W.H.
A - 12	-----	.540 K.W.H.

THOMAS A. EDISON
President

FRANK L. DYER
Vice-President and General Counsel

Handwritten signature
~~EDISON~~
General Manager

H. F. MILLER
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

Telephone, 908 Orange

ORANGE, NEW JERSEY May 16th, 1912

The Lansden Company,
Newark, N. J.

Gentlemen:-

In accordance with the understanding at which we arrived at our meeting this day, we have entered your order for your full requirements of Edison Storage Batteries for your trucks covering a period of five years from this date, at list prices for such batteries less twenty per cent (20%) discount, with an extra two per cent (2%) for cash within ten days.

Should your purchases in any one year exceed an aggregate of one hundred and twenty (120) cells of type A-6, or their equivalent in price, per working day, you are to have an extra two and one-half per cent (2-1/2%) discount, irrespective of the cash discount, that is to say, the discounts would be 20% and 2-1/2%, with 2% for cash within ten days. It being understood that if your purchases in the first year are less than an aggregate of one hundred and twenty (120) cells of type A-6, or their equivalent in price, per working day, we will still give you this extra two and one-half per cent (2-1/2%) discount, but this exception applies only to the first year of this arrangement.

L. Co.

(2)

May 16/18

Should your purchases in any one year exceed an aggregate of two hundred and forty (240) cells of type A-6, or their equivalent in price, per working day, you are to have a discount of five per cent (5%) in addition to the regular discount of twenty percent (20%). In this case the discount would be 20% and 5%, with an extra 2% for cash within ten days.

We agree that we will fill orders equally for all users, and give no one an advantage. In any event we will not give to other makers of trucks a better price than you receive for batteries with which such trucks are sold.

If you decide to abandon the use of Edison Storage Batteries, you are to give us six calendar months' notice of your intention to do so.

In order that we may be aided in carrying out our guarantee as to life of batteries, it is understood that your trucks, in which the battery is to be used, shall be properly motored, and that the battery boxes shall be so constructed that our instructions can be readily carried out by the user.

Yours very truly,

THE EDISON STORAGE BATTERY CO.

Thomas A Edison

PRESIDENT.

TAE/ES

Accepted:

The Standard Co.

by

Robert Schuster
W. L. Rice
President
and Mgrs

[ATTACHMENT]

MEADOW CROFT.
MEADOW CROFT.
See change
Bachman & Bee

If you approve of
this, send it down
& have the Co
accept it —
The president to
sign for the Co —
a witness

7/1/97



CABLE ADDRESS: "LANSDENCO, NEWARK"

THE LANSDEN COMPANY
MANUFACTURERS OF
Electric Commercial Vehicles

TRUCKS AND WAGONS FOR EVERY SERVICE
EDISON STORAGE BATTERY EQUIPMENT

NEWARK, N. J., U. S. A.

May 18, 1912

Mr. W. G. Bee, Mgr. of Sales,
Edison Storage Battery Co.,
Orange, N. J.

MAY 20

Dear Sir:

Accept our thanks for yours of the 17th, enclosing
your Company's agreement covering our requirements for
Edison Storage Batteries for the next five years.

We appreciate the consideration extended us in
this regard, and we believe it will prove to the mutual
advantage of all concerned.

Yours very truly,

THE LANSDEN COMPANY

W. L. Case
General Manager

WLG/SS

*Enclosed is Copy of
Agreement as accepted
by us - duly signed
W. L. Case*

THOMAS A. EDISON,
CHANCEMAN EDISON OF DIRECTORS



THOMAS A. EDISON

FRANK L. DYER,
PRESIDENT

Thomas A. Edison, Inc.
Orange, N.J., U.S.A.

Edison Phonographs and Records
Edison Primary Batteries
Edison Kinetoscopes and Motion Picture Films
Edison Dictating Machines
Edison Home Kinetoscopes and
Motion Picture Films

LONDON
PARIS
BERLIN
SYDNEY
BUENOS AIRES

CABLE ADDRESS
"ZIMOTIC, NEW YORK"

November 9, 1912.

To the Directors of
Edison Storage Battery Company,
Orange, N. J.

Gentlemen:

I hereby resign as Vice-President of the Edison
Storage Battery Company, to take effect immediately.

Yours very truly,

FLD/IWW

Frank L. Dyer

*Abolish the office of
Vice President,*

FRANK L. DYER,
PRESIDENT



Thomas A. Edison, Inc.
Orange, N.J., U.S.A.

Edison Phonographs and Records
Edison Primary Batteries
Edison Kinetoscopes and Motion Picture Films
Edison Dictating Machines
Edison Home Kinetoscopes and
Motion Picture Films

LONDON
PARIS
BERLIN
SYDNEY
BUENOS AIRES

CABLE ADDRESS:
"ZYMOTIC, NEW YORK"

November 9, 1912.

To the Stockholders of
Edison Storage Battery Company,
Orange, N. J.

Gentlemen:

I hereby resign as Director of the Edison Storage Battery Company, to take effect immediately.

Yours very truly,

FID/IWW

Frank E. Green

put in Meadcraft

MINUTES

Special Meeting of the Board of Directors of the Edison Storage Battery Company, held pursuant to notice this 15th day of November, 1912 at eleven A. M. at the office of the Company, corner of Lakeside Avenue and Valley Road, West Orange, New Jersey.

Present:-

The meeting was called to order by the President.

The minutes of the last meeting were read and approved.

The Secretary stated that Mr. Frank L. Dyer had resigned as Vice-President and Director on November 9, 1912.

Upon motion duly made and seconded, and by the affirmative vote of all present, the following resolutions were adopted:-

"RESOLVED, that the Board of Directors of the Edison Storage Battery Company does hereby accept the resignation of Mr. Frank L. Dyer as Vice-President and Director of the Company.

RESOLVED, that Mr. Robert A. Bachman be elected Vice-President of the Company.

RESOLVED, that Mr. William H. Meadowcroft be elected a Director of the Company to hold office until the next annual meeting of the stockholders and until his successor shall be elected."

Mr. Harry F. Miller then tendered his resignation as Secretary.

Upon motion duly made and seconded, and by the affirmative vote of all present, the following resolutions were adopted:-

"RESOLVED that the Board of Directors of the Edison Storage Battery Company does hereby accept the resignation of Mr. Harry F. Miller as Secretary of the Company.

RESOLVED that Mr. William H. Meadowcroft be elected Secretary of the Company".

Mr. William H. Meadowcroft was thereupon duly sworn in as Secretary of the Company.

Upon motion duly made and seconded and by the affirmative vote of all present, the following resolutions were adopted:-

"RESOLVED that all authority heretofore granted by the Board of Directors for the signing and countersigning of the checks of this Company be and hereby is terminated and canceled, and that from and after the date of this meeting and until said Board of Directors shall otherwise indicate, the checks of this Company shall be signed by H. F. Miller, Treasurer, or by

J. V. Miller, Assistant Treasurer, and in order to become binding upon the Company shall be countersigned by Thomas A. Edison, President, or W. H. Meadowcroft, Secretary, and that the bank wherein the funds of the Company are deposited shall be notified of this action of the Board.

RESOLVED, that all authority heretofore granted by the Board of Directors for the signing and countersigning of promissory notes given by this Company, be and hereby is terminated and canceled, and that from and after the date of this meeting and until the Board of Directors shall otherwise indicate, such notes shall be signed by H. F. Miller, Treasurer, or by J. V. Miller, Assistant Treasurer, and in order to become binding upon the Company shall be countersigned by Thomas A. Edison, President."

The meeting upon motion adjourned.

Secretary.

W. H. Meadowcroft
H. F. Miller
Robert A. Hademan

[CA. NOVEMBER 1912]

THE EDISON STORAGE BATTERY

The Edison Storage Battery has made very large gains in the last twelve months. We have increased the plant in number of cells manufactured, making them to an A-4 cell basis 40% in the last twelve months from November 1st. Unfilled orders remaining on our books November 1st worked into an A-4 equivalent shows 50,000 cells.

We are losing a very large volume of business in all branches of the line owing to the fact that we are unable to deliver batteries promptly. In the automobile trade the battery is only one third the investment of the equipment, and when a firm has money tied up in an investment of this size they are impatient to get it on the street as soon as possible. When they find they are held up from thirty to ninety days getting delivery of a particular battery, they immediately order some other make that they can obtain on quick notice. Not only this but automobile manufacturers know the condition that we are in on cases of delivery, and when they have the opportunity of making a quick delivery, they cannot figure on Edison Batteries, knowing they cannot get them. This we don't hear of at the time. It all goes to show that we have got to increase our manufacturing plant at once.

Several of the large gasoline truck manufacturers are now figuring on going into the manufacture of electric vehicles, among them is the Studebaker Corporation who are bringing out a new line of electric trucks especially adapted for Edison Batteries. I understand from very good authority that the International Automobile Co., who handle Mack-Saurer-Kewitt Trucks are figuring on bringing out a new line of electric trucks.

The General Motors Co. have informed me that on February 1st they will place an order with us for 500 sets of batteries to be delivered in four months, and continue at that rate throughout the year.

The following automobile concerns will demand from December 1st on the following batteries per day:

General Motors Truck Co.	- 2 batteries A-6 equivalent 180 A-4's
The Landen Co., Newark.	- 2 batteries A-6 equivalent 180 A-4's
General Vehicle Co.	- 2 batteries A-6 equivalent 180 A-4's
Anderson Elec. Car Co.,	- 2 batteries A-4 equivalent 180 A-4's

The exclusive contract that we have had with Mr. Anderson was up on Nov. 1st and we have notified other pleasure car

manufacturers that if they would allow us to approve of their Edison Battery car model, we would be glad to furnish them with Edison Batteries. Up to this time the Rauch & Lange Carriage Co. of Cleveland are the only firm which have allowed us to approve their model. Tests that we have made on the car have all proved very satisfactory and we are all satisfied that we will get our share of their business.

Baker and Waverley both have a model which they have been making for a year suitable for Edison Batteries, which have been sold this last year with lead, so as it stands it means that pleasure car manufacturers who have cars suitable for Edison Batteries are:

Anderson Elec. Car Co.,
S. R. Bailey & Co.,
Baker Motor Vehicle Co.,
The Waverley Co., and
Rauch & Lang Carriage Company.

During this last year we have started a very large steam railroad business both in car-lighting, signal work and industrial trucks. During the last seven months the Illinois Central have placed orders with us for \$93,656.00 worth of storage batteries. The Pennsylvania Railroad in the last eight months have placed orders with us for \$86,817.00 worth of storage batteries. During the last six months the Norfolk & Western Railroad have placed orders for \$46,100.00. The Southern Pacific Railroad have placed orders for \$18,000.00.

It looks as if we were going to get a much larger volume of business during the coming year and it has practically been promised us.

Pennsylvania Railroad	-	20,000	cells
Illinois Central	"	-	5,000 "
Baltimore Lines	"	-	10,000 "
All other roads	"	-	2,500 "
These are equivalent to A-4 cells.			

We should at least get orders for 2,500 A-4 type cells for signal work and 1,000 A-4 cells for miscellaneous and baggage trucks.

I think this estimate very low.

One line of business we haven't touched which is enormous is the battery for electric self starter which gasoline manufacturers are putting on their gas cars. Mr. Henry Ford has come out flat-footed and made a statement that he was going to put electric self starters in his cars and he would not consider any other batteries but Edison. He has told us several times and a recent letter dated Oct. 24th in which his secretary makes a statement that Mr. Ford said he would consider nothing but Edison.

- 3 -

All this goes to show the importance of increasing the size of our manufacturing plant at once.

In determining the expense of the final renewal of any battery hereunder there shall be included only such proportion of the price of such final renewal as shall not overrun the said period of

For a period of ten (10) years, from date of receipt of any battery in —, the expense to the purchaser for ~~the~~ such original battery and all necessary renewals thereof shall not exceed an amount, for any size battery, equal to the "ten per cent maximum expense" for ~~each~~ ^{the respective} size cells listed below, multiplied by the number of cells in the battery.

For Example

Assume the original battery lasts 4 years
Assume the first renewal lasts 4 years
Assume the second renewal lasts 4 years.
There would be charged to the
expense under the guarantee
the original cost of the

the first cost of the original battery,
the cost of the first renewal,
and $\frac{1}{4}$ of the cost of the final
renewal and if the sum of the
above exceeds the guaranteed maximum
the ~~customer~~ Light Company would
be called upon to pay only the
guaranteed amount.

$2150 \frac{1}{4}$ A 4 guaranteed
10 years if lasts

2 batteries shall last 10 years
Cost 2150 per cell of A 4 —

~~if the battery should last longer
than 5 years~~

or 2075 per year 1.075 per year
per cell, should the 1st battery
last say 7 years.

The expense to the purchaser for a period of 10 years from date of receipt of any battery in Hartford, Connecticut, shall not exceed an amount equal to the total sum of the list price of the original battery less fifteen per cent (15%) discount plus the list price of a renewal battery less twenty five per cent (25%) discount; provided such battery and such renewal thereof are used exclusively in vehicles manufactured by the G. V. Co. of L. I. City, N.Y. On making renewals all old battery material shall be the property of the Edison Storage Battery Company. All prices for batteries or renewals to be f.o.b. point of shipment.

In determining the expense of the final renewal of any battery hereunder there shall be included only ~~the~~ such proportion of the price of such final renewal as shall not ~~exceed~~ ^{exceed} the said period of ten years above named, based on the ~~the~~ average life of the original battery and any previous renewals thereof.

The battery co will furnish the first set of batteries at list with 15% discount ^{amount} ~~and~~ ^{also} another battery at list with 25% discount during a period of ten years, but in no case shall the light Co pay for more than two batteries ^{over} such period at above prices. If other batteries are required to fill the guaranteed term, they shall be furnished free ~~for the full~~ but the excess left as determined by the average life of the 2nd batteries shall be paid for on the basis of the cost to the light Co of the 2nd battery.

For instance, if the original and first renewal batteries should not give the capacity named for 10 years, and a second renewal became necessary under this guarantee, the average life of the two batteries would be ascertained. The Battery Company will then furnish said second renewal at list price less 25% discount and will rebate to the purchaser a sum equal to that proportion of the net price thereof as will represent the excess over the 10 year guarantee which such second renewal battery would give as based on the said average life.

The battery Co. guarantees that the life of its battery with one renewal of cells shall reach 10 years, - the original battery shall cost the light Co. list 15% of the renewal least 25% off - in case a 2nd renewal is required the

excess of life over the 10 yr period, based on the average life of the 1st 2 batteries shall be paid ~~for~~ to the Battery Co. at a price proportional to the cost of the 1st renewal

The 1st renewal

The Battery Company guarantees that for the period of 10 years from the receipt of any battery in Hartford the expense of same to the purchaser shall not exceed as follows:

\$21.60	per cell for type A 4
32.00	" " " " A 6
41.60	" " " " A 8
52.80	" " " " A 10
62.40	" " " " A 12

The original battery shall be paid for at list price less 15% discount, and renewal battery or batteries at list price less 25% discount.

Should two batteries give the guaranteed life of 10 years, or exceed it, nothing further shall be paid to the Battery Company. But

if a third battery is necessary to
 fulfill the guaranteed life, the same
 shall be paid for at list less
 25% discount but the Battery
 Company shall rebate to the Light
 Company an amount equal to the
 proportion due on the unexpired
 term of the 10 year guarantee
 based on the average life of the
 first two batteries.

$$\begin{array}{r}
 1 - 4 \text{ years} = 1000 \quad 1000 \\
 1 - 4 \text{ " } = 750 \quad 750 \\
 \hline
 1 - R - 2 \text{ yrs.} = 750 \quad 375 \\
 \hline
 4500 \quad 2125 \\
 1750 \quad 1750 \\
 \hline
 750 \quad 3751
 \end{array}$$

$750 \times \frac{2}{4} = 375$

3 years -

2 - 11 -

guarantees that for a period of ten years
the cost for batteries shall not exceed
— dollars. The 1st battery shall
be paid for a list with 15% discount
and renewal battery or batteries
at list with 25% discount,
~~should the battery be replaced by~~
two batteries. ~~over the guaranteed~~
life + exceed it nothing further
shall be paid the battery Co -
but if a third battery is
necessary then the battery
Co shall receive no pay
~~for it if it fails to~~
~~function through the~~
until the 10 year period expires
any excess life of this 3rd
battery shall be paid to
the battery Co based on the average
life of the first 2

If under the above guarantee
a second renewal of battery becomes
necessary, the Battery Company shall
only be called upon to stand such
proportion of the price thereof as will
~~would be equivalent to a total~~
ensure the light Company receiving
10 years life of the battery on the
basis of ~~the orig.~~ paying for the
original and first renewal batteries
only.

If Battery put on top of vehicle

Note

1000 lb vehicle have one
take A 6 - 1 ton A 8 - 2 ton
A 10 - 3 & over A 12

Schedule X

The special trucks for the ~~station~~
Battery service, ^{designed} shall be provided
with appliances whereby the battery
can be put in or taken from the
vehicles without disturbing
~~the individual units~~ the individual
units, to the end that the great
number of removals over the
guaranteed life will not
tend to injure the battery
mechanically

2nd That the truck when
fully loaded and moving on
a 6% grade shall not
have a greater drop of
voltage on the wiring carrying
the current than $2\frac{1}{2}$ volts
with a 60 cell battery

3rd

Also that the battery box shall be so constructed that it may be closed in the winter to prevent ~~any~~ low temperature from affecting the discharge rate of the battery.

1000 lbs vehicle to have box
to take A 6; - 1 ton A 8; - 2 ton
A 10; - 3 ton and over, A 12.

Schedule A

1st The special trucks for the Battery Service System shall be provided with appliances whereby the batteries can be put in or taken from the vehicles without disturbing the individual ^{units} ~~units~~, to the end that the great number of removals over the guaranteed life will not tend to injure the battery mechanically.

2nd that the truck when fully loaded and moving on a 6% grade shall not have a greater drop of voltage on the wiring carrying the current than 2 1/2 Volts with ~~at~~ a 60 Cell battery.

3rd also that the battery box
shall be so constructed
that it may be closed
in the winter to prevent
low temperature from
affecting the discharge
rate of the battery

Wadsworth,

If I understand right, Waggoner wants to be ^{for an agreed depreciation} ~~sure~~ that costs of A six battery sixty cells shall not exceed hundred and eighty one dollars yearly over a period of ten years, on battery service scheme. If contract is so worded that Battery Co gets seventy five per cent of any sum less than ^{on this basis} these figures, he can go ahead with the two special places ~~of~~ which he states must be closed at once but no further until my return when a proper contract is to be made. You will understand

that I want to benefit to the extent of ~~some~~ ^{Three} quarters in case ~~life of~~ ^{the} battery can be made to have a longer life than five years before exchange

If it is arranged that if Battery Co ~~increases~~ can increase the life of each set batteries beyond 5 yrs it should

AGREEMENT entered into this day of 1912
between Edison Storage Battery Company, a New Jersey Corporation,
and General Vehicle Company, a New York Corporation, hereinafter
referred to as the Battery Company and the Vehicle Company, respec-
tively, WITNESSETH:

WHEREAS: the Battery Company is in the business of making
and selling storage batteries, and the Vehicle Company is in the
business of making and selling electric vehicles, and

WHEREAS, the Vehicle Company in order to stimulate the
sale of its vehicles is willing to manufacture and sell its vehicles
to users minus the battery, and to adapt such vehicles mechanically
and electrically for the use of Edison Storage Batteries, it being
contemplated to sell such vehicles minus the battery for use in
localities where the Vehicle Company makes contracts with respon-
sible parties who agree to purchase, own and maintain a suffi-
cient supply of Edison Storage Batteries to be charged by them and
to be rented to owners of such vehicles made by the Vehicle Company.
on a basis of a charge for the service rendered, such plan being
herein designated "Battery Service System";

Now, it is agreed as follows:

1. The Battery Company agrees that it will sell to the
Vehicle Company its batteries, for use as herein contemplated, on
the following terms and conditions:

(a) That such batteries will be resold by the Vehicle
Company only to such parties as aforesaid that have contracted
with the Vehicle Company to maintain and continuously own a
sufficient supply of Edison Storage Batteries for use only in
vehicles mechanically and electrically adapted to the Edison
Storage Battery, and constructed in such manner that the battery
cradle may be quickly removed from the vehicle without disturbing
the battery units, and a cradle containing a charged battery may
be remounted without material delay;

(b) The Battery Company agrees that at all times the net cash sale price of a new vehicle battery to the Vehicle Company, as distinguished from an exchange transaction, shall be not higher than at present and at all times at least five and five (5% and 5%) per cent greater discount than at which the Battery Company regularly sells vehicle batteries to Central Stations, Power Companies or Garages for other uses than a Battery-Service System. The Battery Company may refuse to continue to sell on said terms batteries hereunder, if the Vehicle Company interferes with the Battery Company's business by selling said batteries for use herunder at a discount greater than fifteen (15%) per cent from the Battery Company's list price.

(c) The guaranteed life of any battery to be sold as heroin contemplated and of one renewal thereof and the cost of the renewal thereof shall be governed by the terms of the guarantee as set forth in Schedule B.

The Vehicle Company agrees that the vehicles sold by it to be operated in connection with the Edison Storage Battery for use as contemplated herein, shall be constructed so as to be specially adapted mechanically and electrically for use with the Edison Storage Battery as made at the date of this agreement, it being understood that the design of such vehicles shall include such special and necessary mechanical and electrical appliances and arrangements for carrying the batteries as may be necessary in order that the batteries may be readily removed from the vehicle or attached to the vehicle without disturbing the cell units of the batteries and shall include the mechanical and electrical appliances specified in Schedule A. hereto annexed.

3. Unless sooner terminated by mutual consent, this agreement shall remain in force for the period of ~~five~~ ⁵ years from date hereof and shall continue thereafter from year to year unless written notice of cancellation shall be given by either of the

*proposed
specifications*

*History of agreement for filing with records
as a part of the vehicle*

Edison Storage Battery

parties hereto to the other at least ninety days before the expiration of any yearly period; if such notice is given, this agreement shall terminate at the expiration of the yearly period next following the date of the notice.

4: THIS AGREEMENT is binding upon and shall enure to the benefit of the parties hereto and their several successors in business.

Do not know about this
9

IN WITNESS WHEREOF, the parties hereto have respectively caused these presents to be executed and their respective corporate seals to be hereunto attached by their proper officers thereunto authorized.

EDISON STORAGE BATTERY COMPANY,

By

GENERAL VEHICLE COMPANY,

By

SCHEDULE "A".

FIRST: The special vehicles contemplated herein shall be so constructed and provided with such fittings that the batteries can be put in or taken from the vehicles without disturbing the individual units, to the end that the great number of removals over the guaranteed life will not tend to injure the battery mechanically.

SECOND: The vehicle when fully loaded and moving on a six per cent (6%) grade shall not have a greater drop of voltage on the wiring carrying the current than two and one-half (2-1/2) volts with a sixty (60) cell battery.

THIRD: The Battery box shall be so constructed that it will be closed in the winter to prevent low temperature from affecting the discharge rate of the battery. *Enough to free*

cells winter ✓

COPY OF GUARANTEE OF EDISON STORAGE BATTERY COMPANY.

The Edison Storage Battery Company, agrees to and hereby does guarantee all Edison Storage Batteries sold through the General Vehicle Company to

as follows: provided that the batteries and the renewals thereof are used in vehicles manufactured by the General Vehicle Company, Long Island City, New York, and provided that such batteries are continuously owned, maintained and operated by the said

for use in a Battery Service System wherein charged batteries are leased or rented on a basis of service rendered and provided the batteries are operated in accordance with the instructions furnished by the Edison Storage Battery Company.

The Edison Storage Battery Company guarantees that the life of any battery with one renewal thereof shall be ten years.

The price of renewals shall be list price less 25% discount. In case a second renewal is required the probable excess of life over the ten year period shall be estimated, based on the average life of the original battery and first renewal and the

shall pay the Edison Storage Battery Company for such estimated excess life on a pro rata basis. On making renewals, all old batteries or battery material shall be the property of the Edison Storage Battery Company. All prices are f.o.b. factory.

This guarantee excludes all renewals required by reason of accident, misuse or abuse. All expense of maintaining crates and the renewal of electrolyte is also excluded from this guarantee.

The Edison Storage Battery Company shall have the opportunity to inspect the batteries at all reasonable times.

This guarantee is contingent upon conditions of credit being satisfactory at all times.

*should be any renewal
for life beyond these four years*

No battery is to be renewed hereunder until its capacity has fallen to a point where it is incapable of giving ninety per cent (90%) of its rated capacity in Kilowatt hours.

The rated Kilowatt hour capacity of each cell is given below:

A 4	.180 K.W.H.
A 6	.270 " " "
A 8	.360 " " "
A10	.450 " " "
A12	.540 " " "

General Vehicle Company,
Long Island City,
N. Y.

Dear Sirs:

Referring to the agreement dated between the Edison Storage Battery Company, the Hartford Electric Light Company and the General Vehicle Company, it is contemplated that such agreement with the Hartford Company is only one of a number of similar agreements that it is proposed to make for the use of Edison batteries on the "Edison Battery-Service System" in vehicles of your manufacture only.

We understand that you propose to notify the various central stations throughout the country in regard to this System with the view of introducing it into extended use. We will not permit our batteries to be used on that System in any locality in vehicles other than yours.

With reference to such use with your vehicles in other localities, we agree to enter into agreements similar to that with the Hartford Company, with companies approved by us.

If we find at any time that this System or plan is operating to our direct disadvantage, we reserve the right to refuse to extend it by making agreements with reference to other localities, but leaving in force, of course, the agreements that may then have been made.

Very truly yours,

EDISON STORAGE BATTERY COMPANY,

By

COPY
A G R E E M E N T

Between
EDISON STORAGE BATTERY COMPANY
and
FREDERICK J. LISMAN, DAVID M.
MINESHEIMER and WILLIAM GOODMAN

Dated January 10, 1914

MEMORANDUM OF AGREEMENT made the tenth day of January, 1914, by and between EDISON STORAGE BATTERY COMPANY, a New Jersey corporation having its principal office at West Orange, New Jersey, hereinafter called the "Edison Company", party of the first part, and FREDERICK J. LISMAN, DAVID M. MINZESHEIMER and WILLIAM GOODMAN, copartners, doing business under the name and style of F. J. Lisman and Company at #30 Broad Street, New York, N.Y., hereinafter called the "Bankers", parties of the second part, W I T N E S S E T H : -

WHEREAS, the Edison Company is engaged in the manufacture and sale of Edison storage batteries; and

WHEREAS, the Bankers desire to purchase Edison storage batteries from the Edison Company to be used and sold for the purpose hereinafter set forth;

NOW, THEREFORE, for and in consideration of the premises and of the mutual promises herein contained, and of the sum of One Dollar (\$1.00) in hand paid by the Bankers to the Edison Company and by the Edison Company to the Bankers, the receipt whereof is hereby acknowledged, the parties hereto have agreed and do hereby agree as follows:-

(1) Unless sooner terminated or extended as hereinafter provided for, this agreement shall continue until the 31st day of December, 1920.

(2) The Edison Company agrees, upon and subject to the conditions hereinafter stated, to sell exclusively

to the Bankers during the life of this agreement Edison storage batteries to be used only for the following purpose, namely: For the initial battery equipment of storage battery propelled passenger cars and trains of such passenger cars designed and constructed to run only upon rails (but not including electric locomotives except such storage battery propelled passenger cars/used as locomotives for hauling freight on roads where the passenger traffic is handled by such storage battery propelled passenger cars) and to be used only in the following territory, namely: United States of America including the District of Columbia, but excluding Alaska, the Panama Canal Zone and the possessions and dependencies of the said United States of America outside of North America, (said territory being hereinafter referred to as the "aforesaid territory"). When the words "Edison batteries" are hereinafter used, they are understood to mean the Edison storage batteries (as now made or hereafter improved) which constitute the subject matter of this agreement. *See
pg. 2
JAC
JJS*

(3) The Edison Company also agrees that during the life of this agreement and except as otherwise provided herein, it will not sell nor otherwise dispose of Edison storage batteries to be used within the aforesaid territory for the purpose set forth in Paragraph Two (2) hereof to any one other than the Bankers, but the Edison Company expressly reserves the right to use and permit others to use for said purpose within the aforesaid territory any of said batteries, such use to be restricted to demonstrations, experiments and tests only, and furthermore expressly reserves the exclusive right to sell and otherwise dispose of and to use and license for use within the aforesaid territory Edison storage batteries for renewals and replacements for storage battery propelled cars of all

kinds including cars of the class specified in Paragraph Two (2) hereof, and also reserves the exclusive right to sell and otherwise dispose of and use and license for use within the aforesaid territory Edison storage battery parts, supplies and accessories for any and all purposes except for the initial equipment of cars with respect to which the Bankers are expressly licensed hereunder. The Bankers agree that the promises and covenants of the Edison Company contained in this paragraph and paragraph Two (2) hereof shall be and are binding upon the Edison Company only so long as the Bankers shall continue to purchase from the Edison Company at least the number of A-10 cells set forth in the schedule contained in Paragraph Four (4) hereof or their equivalent in rated ampere hour capacity.

(4) The Bankers agree to purchase from the Edison Company all storage batteries which the Bankers shall require during the life of this agreement for the purpose set forth in Paragraph Two (2) hereof, and agree that during the life of this agreement they will not manufacture nor sell nor otherwise dispose of for use within the aforesaid territory any passenger car designed or intended to be propelled on rails by storage batteries except when equipped with Edison storage batteries exclusively, or when not so equipped, upon the condition that said car shall be used only when equipped with Edison storage batteries exclusively. The Bankers agree and promise that they will purchase hereunder from the Edison Company during the respective full six months periods of this agreement at least the number of A-10 cells set forth in the follow-

ing schedule or their equivalent in rated ampere hour capacity, said purchases to be made within the respective periods set forth in said schedule:-

During the first six months of the year 1914	1650 A-10 cells
During the last six months of the year 1914	1650 A-10 cells
During the first six months of the year 1915	4950 A-10 cells
During the last six months of the year 1915	4950 A-10 cells
During the first six months of the year 1916	8250 A-10 cells
During the last six months of the year 1916	8250 A-10 cells
During the first six months of the year 1917	13750 A-10 cells
During the last six months of the year 1917	13750 A-10 cells
During the first six months of the year 1918	19250 A-10 cells
During the last six months of the year 1918	19250 A-10 cells
During the first six months of the year 1919	27500 A-10 cells
During the last six months of the year 1919	27500 A-10 cells
During the first six months of the year 1920	35750 A-10 cells
During the last six months of the year 1920	35750 A-10 cells

In determining the amount of purchases made by the Bankers under and against the required minima of the aforesaid schedule, the Bankers shall receive credit against such minima for all initial storage battery equipment sold by the Edison Company to the Bankers for the purpose of Paragraph Two (2) hereof and for use in the aforesaid territory.

and also for any and all storage batteries which the Edison Company shall sell to the Bankers for the initial equipment of cars of the class specified in Paragraph Two (2) hereof for use in any other territory, provided the Bankers shall have received express permission in writing from the Edison Company to sell for use or use said batteries in said other territory, and no shipment of batteries shall be made by the Bankers to any territory other than the aforesaid territory except with such express permission first having been received from the Edison Company. If during any one of the aforesaid six months periods the purchase of Edison storage batteries by the Bankers shall be in excess of the above specified requirement for that six months period, then such excess shall be credited upon their obligation with respect to purchases for the succeeding six months period or periods. In the event of the termination of this agreement prior to the end of its term by the Edison Company as hereinafter provided, the Bankers shall be released to the following extent and to such extent only from their promise herein contained to purchase quantities of cells in accordance with the aforesaid schedule, to-wit: The Bankers shall not be required to purchase any of the cells required to be purchased in any six months period of said schedule which is subsequent to the receipt of notice of said termination from the Edison Company, and shall not be required to purchase during the six months period in which such termination shall become effective a portion of the quantity required to be purchased, computed as follows:- By dividing the quantity required to be purchased as aforesaid during said last mentioned six months period by 183

and multiplying the quotient thus obtained by the number of days from the receipt of notice of such termination to the end of said last mentioned six months period. Upon the termination of this agreement by the Edison Company as aforesaid, the number of A-10 cells then remaining to be purchased by the Bankers after due allowance for such release shall be the deficiency for which the Bankers shall be required to make settlement in either of the following ways at their option:

(a) By the actual purchase of the number of A-10 cells (or their equivalent in rated ampere hour capacity) included in such deficiency; or

(b) In lieu of such purchase, by paying to the Edison Company as liquidated damages the sum of Two Dollars (\$2.00) for each of the number of A-10 cells included in such deficiency.

(5) The Bankers agree to promote diligently throughout the aforesaid territory the sale of Edison storage battery propelled passenger cars of the class specified in Paragraph Two (2) hereof, and the sale of Edison storage batteries for use upon such storage battery propelled passenger cars, to foster the present and endeavor to create additional demand for such cars and for Edison storage batteries for use thereon, and to manufacture or cause to be manufactured cars sufficient in number and suitable in character to meet such demand, it being the intent and object of this provision to push and promote to such an extent as is reasonably possible the sales and purchases of Edison storage batteries.

(6) The Edison Company agrees to sell and the Bankers agree to purchase and pay for all Edison storage batteries supplied hereunder at the following prices, to-wit: Twenty percent (20%) discount from the Edison Company's general list prices in effect at the date of delivery hereunder of the batteries to the Bankers, and the Edison Company agrees that it will not increase its now current general list prices for present types of Edison storage batteries during the life of this agreement. All prices and deliveries hereunder shall be f.o.b. the Edison Company's factory, Orange, New Jersey, and all payments for such batteries shall be made in cash within thirty days from date of delivery, with two percent (2%) discount for cash within ten days from date of delivery.

(7) The Edison Company agrees to use reasonable diligence with its present manufacturing equipment and system in supplying the Bankers' requirements of Edison storage batteries hereunder, giving all orders hereunder from the Bankers a preference at least over orders from others subsequently placed. It is expressly agreed, however, that the Edison Company shall not be liable for any delay in deliveries of batteries hereunder due to any strike, fire, flood or any unforeseen or unavoidable cause, or due to inability to obtain or delay in obtaining material; nor for any other delay unless caused by the failure of the Edison Company to use reasonable diligence as aforesaid.

(8) The Bankers agree that they will not sell nor otherwise dispose of nor use nor authorize any other person, firm or corporation to use any battery purchased hereunder except for the purpose set forth in Paragraph Two (2)

hereof, and agree that they will not export or ship nor sell for export or shipment, nor otherwise dispose of any of said batteries for export or shipment from the aforesaid territory, except in such particular instances in which the written consent of the Edison Company to such export or shipment shall have been first obtained, and further agree that they will require each vendee, lessee or other user of any and all Edison storage batteries supplied hereunder to enter into agreements not to sell nor otherwise dispose of nor use any battery purchased hereunder except for the purpose set forth in Paragraph Two (2) hereof, and not to export or ship nor sell for export or shipment nor otherwise dispose of any of said batteries for export or shipment from the aforesaid territory, and the Bankers furthermore agree to co-operate with the Edison Company to enforce such agreements. The promises and covenants of the Bankers contained in this paragraph shall be binding upon them during the life of this agreement and also thereafter with respect to any and all batteries supplied hereunder which shall remain in existence and under their control.

(9) The Edison Company guarantees to the Bankers and to each and every subsequent purchaser that each and every battery of Edison storage battery cells which shall be supplied hereunder shall be capable of developing full rated capacity under normal conditions and shall continue to be capable of developing such capacity under normal conditions for a period of at least four years from the date of shipment from the Edison Company's factory, said guaranty being subject to the following conditions, and covering such cells only as to which the following conditions shall be faithfully observed:-

(a) Cells installed in a manner approved by the Edison Company at the time of installation or in accordance with written or printed instructions furnished by the Edison Company from time to time.

(b) Cells used only in connection with apparatus of a type approved by the Edison Company.

(c) Cells cared for and operated in a manner approved by the Edison Company or in accordance with such written or printed instructions of the Edison Company as the Edison Company may furnish to accompany each order of cells delivered as a guide for their care and use.

(d) Cells to which the Edison Company's authorized inspectors and agents shall have access for test and inspection at any reasonable time.

The Bankers agree to furnish or cause to be furnished the following information in regard to each installation of batteries to be supplied hereunder, namely: The draw-bar pull of the car on level track; the grade line of the track upon which said car is to be operated; the schedule of operation, and the proposed times of charging and discharging; and agree to use for said cars such equipment of batteries as the Edison Company shall recommend, and to cause to be made periodical inspections of the battery and car by competent inspectors at least six times a year during the four year guaranty period, it being agreed that the Edison Company itself will make periodical inspections by competent inspectors at least six times per year during such guaranty period.

If within such guaranty period of four years any of said batteries shall be found to be incapable of devel-

oping full rated capacity under normal conditions, the Edison Company will at its discretion, when said battery or the defective part thereof has been delivered to it, either replace said battery with another battery of full rated capacity or repair any defective cells of said battery to restore its full rated capacity, all such replacements and repaired cells to be delivered to the Bankers f.o.b. Edison Company's factory, Orange, N. J. It is understood and agreed, however, that whenever new cells are furnished under this guaranty to replace defective or impaired cells, the guarantee receiving such new cells for such replacement shall pay to the Edison Company the same price for each such new cell as the Bankers shall be charged for similar cells at the time of such replacement, less an allowance for the old cell returned, determined by deducting from the price originally paid for such cell a depreciation at the rate of twenty-five percent (25%) per year.

The Edison Company agrees to deliver with each and every battery purchased hereunder a guaranty substantially the same as the foregoing guaranty and transferable to the purchaser of the battery to which the said guaranty applies.

The Edison Company agrees that from time to time upon written or telegraphic report from the Bankers that any battery equipment supplied hereunder is defective or in need of repair at the Edison Company's factory, the Edison Company will loan and forward promptly to such point or points as the Bankers may direct one or two suitable car batteries to replace temporarily the battery or batteries which are to be returned to the Edison Company's factory for replacement or repair, but the Edison Company shall not be required to have outstanding on loan as aforesaid at any one time more than two car batteries. All transportation

charges to and from the Edison Company's factory upon car batteries so loaned shall be paid by the Bankers.

(10) The Edison Company agrees that the Bankers may relinquish their rights under this agreement and terminate the same at any time upon giving thirty days notice in writing to the Edison Company, and the Bankers agree that if they shall be in default at the expiration of said thirty days in the purchase of storage battery cells as required in the schedule contained in Paragraph Four (4) hereof, (the number of cells required to be purchased during any portion of a six months period being determined by prorating the number of days of the six months period elapsed down to the end of said thirty days with the number of days in said six months period), the Bankers will forthwith either purchase a sufficient quantity of cells to make up the total aggregate deficiency existing at the end of said thirty days or pay the Edison Company as liquidated damages the sum of Two Dollars (\$2.00) for each one of such number of A-10 cells as shall be required to make up such deficiency.

(11) Upon the breach of any provision of this agreement by the Bankers, the Edison Company shall have the right to revoke the rights hereby granted and to terminate this agreement by giving sixty days notice in writing to the Bankers (such notice may be given by the mailing of a letter, postage prepaid, addressed to F. J. Lisman & Company, 30 Broad Street, New York, N.Y.), but such revocation and termination shall not release the Bankers from any of their promises and covenants contained in Paragraph Eight (8) hereof, or from their promise to pay for cells theretofore furnished hereunder, or from their promise to pay any

sum due as liquidated damages hereunder. Except as herein after provided in this paragraph, the Edison Company shall not be required to supply any storage battery, part thereof, or accessory therefor to the Bankers from and after the giving of such notice by the Edison Company, except for the filling of bona fide orders for batteries for the purpose of paragraph two (2) hereof which shall have been already received by the Bankers at the time of the giving of such notice. Provided, however, that if the aforesaid breach shall consist merely in the failure of the Bankers to purchase the minimum number of cells required in the schedule set forth in Paragraph Four (4), the Bankers shall be entitled to the reinstatement of their rights under this agreement if within sixty days after the receipt of the aforesaid notice they shall purchase a sufficient number of cells to make up the total aggregate deficiency existing at the time of the giving of said notice. It is understood and agreed that the Edison Company shall be under no obligation to supply any storage battery, part thereof or accessory therefor to the Bankers during any period in which the Bankers shall be in default in any payment for any battery, part thereof, or accessory therefor sold and delivered hereunder.

(12) It is mutually agreed that upon the termination of this agreement by expiration or otherwise, the Bankers shall be and are hereby licensed to sell and dispose of any and all Edison storage batteries and battery equipment purchased hereunder then or hereafter owned or possessed by them either through original purchase or by repurchase, or by retaking, or otherwise soever; but such

license is strictly limited to the use, sale and disposition of such batteries for the purpose set forth in Paragraph Two (2) hereof, and only in the aforesaid territory, and subject to the provisions of Paragraph Eight (8) hereof, and such limited right of sale and disposition shall run to all trustees under all mortgages, car trusts, deeds of trust or similar instruments.

(13) The Edison Company agrees to indemnify and save the Bankers and their vendees of Edison batteries purchased hereunder harmless from and against any and all liability, judgment, recovery, claim, demand, cost, charge and expense (including counsel fees) in any way incurred by or accruing to the Bankers or their vendees, because of the sale or use of any storage battery cells, parts thereof, or accessories therefor supplied under this agreement, arising out of any suit or action duly instituted against the Bankers or any of their vendees, based upon the claim that the use or the intended use of such battery, part or accessory therefor, device or other improvement thereof infringes upon or is in violation of the United States patent rights of any person, firm, association, or corporation; provided that the Bankers or such vendees shall promptly notify the Edison Company of the institution of any such suit or action, and provided further that the Edison Company shall have the right to be represented by counsel in the defense of such suit or action, and if it so elects, shall have the right to assume sole and entire control of such defense; and provided further that in those cases in which the Edison Company shall elect to assume the sole and entire control of such defense, the Edison Company shall within ten days after the aforesaid notification of the institution of such suit or action, notify the defend-

ant to such suit or action of the intention of the Edison Company to assume the sole and entire control of such defense, and in all such cases in which the Edison Company shall assume such control, the Edison Company shall not be required to pay any counsel fees whatever incurred by the Bankers or their vendees; and provided further, that the Edison Company shall be liable under the provisions of this paragraph only in those cases where the aforesaid infringement is due solely to the use or sale of storage battery cells, parts thereof, or accessories therefor per se, and shall not be liable in those cases in which the infringement is due to the association of said cells, parts or accessories with other apparatus not supplied hereunder. The Edison Company agrees that upon request of the Bankers the Edison Company will furnish in writing to any of the Bankers vendees of Edison storage batteries supplied hereunder a promise substantially the same as, and subject to the conditions of, the foregoing portion of this paragraph.

(14) The Bankers agree that they will not make any contract or arrangement with any manufacturer of cars whereby any other manufacturer is excluded or substantially excluded from furnishing upon equal terms cars to be equipped for propulsion purposes with Edison storage batteries.

(15) The Edison Company agrees that if the Bankers shall have faithfully performed all their promises and covenants herein contained during the initial period of this agreement, that is to say, up to and including December 31, 1920, the Bankers shall be entitled to a renewal or extension of this agreement for a further period of three years from and after the expiration of the aforesaid initial

period, that is to say, up to and including December 31, 1923, provided that the Bankers shall have given notice in writing to the Edison Company at any time, not less than sixty days nor more than ninety days, prior to the expiration of the said initial period, stating their desire to have such renewal or extension hereof. Said renewal or extension shall be upon the same terms and conditions as those of the initial period except that the minimum number of cells or their equivalent in rated ampere hour capacity required and agreed to be purchased by the Bankers during the three years of the said renewal or extension, shall be as follows:-

During the first six months of the year 1921	- 35750 A-10 cells
During the last six months of the year 1921	- 35750 A-10 cells
During the first six months of the year 1922	- 35750 A-10 cells
During the last six months of the year 1922	- 35750 A-10 cells
During the first six months of the year 1923	- 35750 A-10 cells
During the last six months of the year 1923	- 35750 A-10 cells

(16) This agreement shall take effect upon the date hereof and shall be binding upon the Bankers jointly and severally. The obligations and benefits of the Edison Company hereunder shall be binding upon and inure to the successors and legal representatives of the Edison Company, and the obligations and benefits of the Bankers hereunder shall be binding upon and inure to the successors of the Bankers in the banking business of F. J. Lissman and Company. The Bankers shall not have the right to assign this agree-

ment, nor the right to transfer it except to their successors in the banking business of F. J. Lisman and Company. Such transfer shall not release the respective Bankers during their respective lifetimes from any liability or obligation hereunder; nor shall such transfer release their respective estates from any obligation or liability which shall have accrued hereunder at the times of their respective deaths.

IN WITNESS WHEREOF, the Edison Company has caused this agreement to be signed and sealed in duplicate by its officers thereunto duly authorized, and the Bankers have hereunto set their hands and seals in duplicate the day and year first above written.

(SEAL - Edison Storage
Battery Company)

EDISON STORAGE BATTERY COMPANY

Attest:

By Thos. A. Edison
President

Wm. H. Meadowcroft
Secretary

F. J. Lisman & Co.

By F. J. Lisman

Wm. G. Edinburg
Witness to signature of
Frederick J. Lisman

David M. Minzesheimer

William E. Keese
Witness to signature of
David M. Minzesheimer

William Goodman

F. A. Murray
Witness to signature of
William Goodman

State of New York)
 : ss.:
County of New York)

On this 12th day of January, in the year 1914, before me personally came FREDERICK J. LISMAN, DAVID M. MINZESHEIMER and WILLIAM GOODMAN, to me personally known and known by me to be the individuals described in and who executed the foregoing instrument, and severally acknowledged that they executed the same, as and for the purposes set forth therein.

Wm. G. Edinburg

Notary Public Kings County No. 32
Certificate filed in New York County
Reg. No. 23

My commission expires March 30, 1914

(SEAL)

Mr. Edison:-

IN RE CONTRACT WITH F. S. LISMAN & COMPANY

There are several points to which your attention should be called in connection with the carrying out of the above contract, to-wit:

(1) Batteries sold under this contract are sold subject to restrictions as to their use. It is doubtful whether these restrictions can be enforced against a purchaser of the batteries subsequent to the Lisman Company in those cases where such purchaser has no notice of the restrictions. For this reason, the advisability and the feasibility of applying a restriction notice to the batteries should be considered. As I understand it, it is impracticable to apply a plate to the cell itself but ~~that~~ a plate may be applied to the tray if desired. Under the contract the Lisman Company agrees that they will require each vendee, lessee or other user of any battery supplied under the contract to enter into an agreement to comply with the restrictions of the contract applicable to the battery. In view of this agreement on the part of the Lisman Company and the rather small likelihood of these batteries being used for other purposes, it may be that as a practical matter you will decide to dispense with restriction notices on the batteries. I assume that a record will be kept by identifying numbers of all cells.

(2) We agree that we will not sell batteries to others for the purpose for which the Lisman Company has an exclusive license under the contract. While the extent of our obligation under this covenant is not entirely clear, I think it will be advisable

Rushman. We put the number of the cells in each group. I believe it is not possible to apply any restrictions with the return to me.

Noted HLL

(2)

for us in all cases where batteries are sold to others to make inquiry as to the use for which these batteries are purchased. I understand from Mr. Bee that as a general rule the Battery Company is informed as to the use the purchaser intends to make of the battery.

(3) A special form of guaranty in accordance with the contract should be prepared to accompany each battery supplied under the contract, and the battery identified in some suitable manner as, for example, by the numbers appearing on the cells.

HL-JS

Henry Canham

Our executed copy of the agreement and the letter signed by Mr. Beach and Federal Storage Battery Car Co. have been sent to Mr. H. F. Miller to be filed. An extra copy of the agreement is attached hereto, and I suggest it be turned over to whoever is to have charge of carrying out the Storage Battery Co's part of the contract.

HL

MORTGAGE

EDISON STORAGE BATTERY COMPANY

TO

FIDELITY TRUST COMPANY - TRUSTEE

\$2,000,000

DATED SEPTEMBER 1, 1916

MORTGAGE

THIS INSTRUMENT made this first day of September, 1916 by and between EDISON STORAGE BATTERY COMPANY, a corporation organized and existing under the laws of the State of New Jersey, and having its principal place of business at West Orange, County of Essex, in said State, party of the first part, (hereinafter called the Company), and FIDELITY TRUST COMPANY, a corporation organized and existing under the laws of the State of New Jersey, and having its principal office in the City of Newark, County of Essex, in said State, party of the second part (hereinafter called the Trustee), WITNESSETH THAT:-

WHEREAS, the Company has heretofore issued bonds secured by a certain mortgage, which said bonds were due for payment July 1, 1916, and certain of which said bonds have not yet been paid; and

WHEREAS, the Company is indebted to Mr. Thomas A. Edison, of West Orange, New Jersey, on open account; and

WHEREAS, the Company has acquired or is about to acquire certain property from said Thomas A. Edison used by the Company including the following:-

Boiler house and stack, including foundation, boilers and settings, blowers, coal and water handling apparatus and other equipment in, upon and about the premises at West Orange, New Jersey, hereinafter designated as Tract 6 and Tract 7;

Machinery, tools, furnaces, tanks, pumps, plating apparatus, electrical apparatus and wiring and other equipment in, upon and about the premises occupied by the Company at West Orange, N. J.;

Buildings, stacks, towers, tanks and other fixtures located upon the premises in Bloomfield and Belleville, N. J. leased or about to be

leased by the Company from said Thomas A. Edison, and machinery, tools, furnaces, boilers, tanks, pumps, electrical apparatus and wiring and other equipment in, upon and about said premises and buildings; and

WHEREAS, the Company has acquired or is about to acquire certain lands and buildings in West Orange, N. J. from said Thomas A. Edison and Thomas A. Edison, Incorporated, a corporation of New Jersey, of West Orange, New Jersey; and

WHEREAS, it is desired to provide funds for redeeming the said outstanding bonds and to enable the mortgage securing said bonds to be discharged; to pay the aforesaid indebtedness on open account to said Thomas A. Edison in whole or in part; to pay in whole or in part for the said land and buildings and other property acquired or to be acquired as aforesaid; to place the Company upon a better financial basis by converting a part or the whole of its outstanding floating indebtedness into a bonded indebtedness; and to provide funds for such other purposes as the Board of Directors in their discretion may deem proper and advisable, the Company with the consent and authorization of its stockholders at a meeting called for such purpose, and in pursuance of due action by its Board of Directors, has determined to issue its first mortgage five percent gold bonds in an amount not to exceed the sum of Two Million Dollars (\$2,000,000), and to secure all of the bonds so issued by a mortgage in the terms of this indenture upon the premises, goods, chattels, Letters Patent and applications for Letters Patent hereinafter described, and any and all real estate hereafter to be acquired, which said bonds shall be two thousand (2000) in number and of the par value of One Thousand Dollars (\$1000) each, numbered from 1 to 2000, both inclusive. Said bonds are to bear the same date as this indenture, are to be payable upon the dates of maturity hereinafter specified in gold coin of the United States of America of the standard of weight and

fineness existing September 1, 1916, and shall bear interest from September 1, 1916 at the rate of five percent (5%) per annum payable in like gold coin semi-annually on the first day of March and September in each and every year from the first day of March, 1917 until the payment of the principal amount thereof, and shall be issued as coupon bonds and shall have attached thereto coupons representing the semi-annual installments of interest thereon, each of which coupons is to be authenticated by the facsimile signature of the present treasurer or of any future treasurer of the Company, and all such coupon bonds are to be registrable as to principal, and the said bonds with the coupons thereto pertaining are to be substantially of the following form, the distinguishing number and the date of maturity thereof being properly inserted, namely:-

UNITED STATES OF AMERICA

State of New Jersey

No. _____

Amount \$1000

Edison Storage Battery Company

First Mortgage Five Percent Gold Bond

KNOW ALL MEN BY THESE PRESENTS, that Edison Storage Battery Company, a corporation organized under the laws of the State of New Jersey, for value received, hereby acknowledges itself to be indebted to the bearer, or if registered, to the registered holder hereof in the sum of One Thousand Dollars (\$1000), which sum it promises to pay to the lawful holder hereof in gold coin of the United States of America of the standard of weight and fineness existing September 1, 1916, at the office of Edison Storage Battery Company at West Orange aforesaid on the first day of _____, Nineteen Hundred and _____ (unless sooner paid as hereinafter provided),

with interest thereon at the rate of five percent (5%) per annum payable in like gold coin at said office on the first day of March and September in each and every year, on the presentation and surrender of the annexed coupons as they severally mature.

The principal and interest on this bond are payable without deduction for any tax or taxes or stamp duties (other than succession, inheritance or estate taxes) which said Edison Storage Battery Company or Fidelity Trust Company, Trustee under the mortgage hereinafter referred to, may be required to pay thereon or to retain or to deduct therefrom under any present or future law of the United States of America or any State, County, Municipality or any taxing authority thereof.

This bond is one of a duly authorized issue of bonds of said Edison Storage Battery Company of like date, tenor and effect, except as to the distinguishing number and date of maturity thereof, issued and to be issued to an amount not to exceed Two Million Dollars (\$2,000,000) in the aggregate, and numbered from 1 to 2000, inclusive, under and in pursuance of and all ratably secured by the first mortgage bearing even date herewith, duly executed by said Edison Storage Battery Company to the Fidelity Trust Company, of Newark, New Jersey, as Trustee, of and upon the property mentioned therein, to which indenture of mortgage reference is hereby made for the description of the property mortgaged and the nature and extent of the security and the rights of the holders of said bonds under the same, and the terms and conditions upon which said bonds are issued, secured and payable.

If default shall be made in the payment of interest on this bond or in the performance or observance of any of the covenants, obligations and agreements in said mortgage contained, then the principal of this bond may be declared and become due and payable, but only on the conditions and in the manner and at the time provided in said mortgage.

This bond is subject to redemption at the option of said Edison Storage Battery Company on September 1, 1917 or on any interest date thereafter at one hundred and five percent (105%) of the face value thereof, and accrued interest, upon notice, as provided in said mortgage.

This bond until registered shall pass by delivery. It may as to principal be registered in the books of said Edison Storage Battery Company to be kept at its office in West Orange aforesaid; and if so registered will thereafter be transferable only upon the books of the said Edison Storage Battery Company by the owner in person or by his attorney, unless the last preceding transfer shall have been to bearer and the transfer by delivery thereby restored. And it shall be susceptible of successive registrations and transfers to bearer at the option of the holders, but such registration shall not affect the negotiability of the annexed coupons, which shall continue to be transferred by delivery merely and payable to bearer.

No recourse shall be had for the payment of the principal or interest of this bond to the stockholders, officers or directors, present or future, of said Edison Storage Battery Company, either directly or indirectly, by virtue of any statute or by enforcement of any assessment or otherwise, and any and all liability of such stockholders, officers and directors in respect to said bonds is hereby expressly waived and released by every holder hereof.

This bond shall not be valid until authenticated by a certificate of the Fidelity Trust Company as Trustee endorsed thereon, or its successor in trust

IN WITNESS WHEREOF, said Edison Storage Battery Company has caused these presents to be signed by its Vice-President and Financial Executive

and its corporate seal to be hereto affixed and attested by its Secretary, and the coupons for such interest bearing the facsimile signature of its Treasurer to be attached hereto this first day of September, 1916.

EDISON STORAGE BATTERY COMPANY.

By _____
Vice-President and Financial Executive

Attest:-

Secretary

COUPON

No. _____
On the first day of _____, 19____, Edison Storage Battery Company will pay to the bearer at its office in West Orange, N. J. Twenty-five Dollars (\$25.00) in gold coin of the standard of weight and fineness existing September 1, 1916, being six months interest on its first mortgage gold bond No. _____, on the presentation and surrender of this coupon, unless said bond shall be sooner redeemed.

\$25.00

Treasurer

AND WHEREAS, on each of said bonds there is to be endorsed a certificate of the Trustee or of its successor appointed hereunder, that said bond is one of the bonds described in this indenture and no bond is to be secured by this indenture or to be obligatory for any purpose unless such certificate shall have been executed by the Trustee or its duly appoint-

ed successor, which certificate is to be of the following form, namely:

TRUSTEE'S CERTIFICATE

Fidelity Trust Company hereby certifies that the within bond is one of the series of bonds described in the mortgage within mentioned.

Fidelity Trust Company

by _____

Trust Officer

AND WHEREAS all acts and things prescribed by law and by the by-laws of the Company necessary to make said bonds, when authenticated by the certificate of the Trustee, valid, binding and legal obligations of the Company, and these presents a valid indenture according to its tenor to secure and to provide for the payment of said bonds, have been done or performed or have happened, and the form, execution, issue and delivery of said bonds, and the form, execution and delivery of this indenture have been in all respects duly authorized by the Board of Directors and by the stockholders of the Company.

NOW, THIS INDENTURE WITNESSETH:-

That in consideration of the premises and of the purchase and acceptance of such bonds by the holders thereof and of the sum of One Dollar to it duly paid by the Trustee at or before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in order to secure the payment of the principal and interest of all such bonds at any time issued and outstanding under this indenture according to their tenor and effect and the performance of all the covenants herein contained and to

declare the terms and conditions upon which said bonds are issued and received, the Company has executed and delivered these presents and has granted, bargained, sold, aliened, released, conveyed, confirmed, assigned, transferred, mortgaged, set over and warranted, and by these presents does grant, bargain, sell, alien, release, convey, confirm, assign, transfer, mortgage, set over and warrant unto Fidelity Trust Company, a corporation of the State of New Jersey, having its principal office in the City of Newark, County of Essex in said State, all the following described property, namely:-

First: (a) All that tract or parcel of land and premises, herein-after particularly described, situate, lying and being in the Borough of Glen Ridge in the County of Essex and State of New Jersey.

BEGINNING in the north-easterly line of Bloomfield Avenue at the easterly corner of property now or formerly of Mrs. M. Benson, which corner is also distant in said line of Bloomfield Avenue, three hundred and ninety one and sixty four one hundredths feet more or less westerly from the centre line of Herman Street; thence running along Bloomfield Avenue south twenty three degrees, thirty two minutes east, one hundred and sixty nine and sixty hundredths feet; thence north forty five degrees, twenty seven and one half minutes east, five hundred and forty and thirty five one hundredths feet more or less to the southerly line of Belleville Avenue; thence along the same the different courses thereof one hundred and thirty seven feet or more to the north-easterly corner of said Benson's land; thence along the same south forty eight degrees, five minutes west, four hundred and seventy two feet more or less to Bloomfield Avenue and place of beginning. Being the same premises conveyed to the party of the first part by Thomas A. Edison and wife by their deed dated July 11th, 1901, and recorded in the Register's Office of the County of Essex in book N-34 of Deeds for said County on pages 460 et seq.

(b) All those tracts or parcels of land and premises hereinafter particularly described, situate, lying and being in the Town of West Orange, in the County of Essex and State of New Jersey.

Tract 1.

BEGINNING at the intersection of the easterly line of Valley Street with the southerly line of Lakeside Avenue, and running thence along said line of Lakeside Avenue South forty-eight degrees thirty-seven minutes East three hundred and thirty-one feet and twenty-nine one hundredths of a foot to the westerly line of Ashland Avenue; thence along said line of Ashland Avenue South forty-eight degrees twenty-two minutes West six hundred and thirty-five feet and fifty one hundredths of a foot to the Northerly line of Charles Street; thence along said line of Charles Street North forty-one degrees thirty-eight minutes West one hundred and fifty feet; thence parallel with Ashland Avenue North forty-eight degrees twenty-two minutes East ninety feet; thence parallel with Charles Street South forty-one degrees thirty-eight minutes East fifty feet; thence parallel with Ashland Avenue North forty-eight degrees twenty-two minutes East thirty feet; thence parallel with Charles Street North forty-one degrees thirty-eight minutes West fifty feet; thence parallel with Ashland Avenue North forty-eight degrees twenty-two minutes East two hundred and ninety-eight feet and ninety-four one hundredths of a foot; thence North thirty-eight degrees fifty-six minutes West one hundred and fifty feet more or less to the easterly line of Valley Street; thence north-easterly along said line of Valley Street, curving to the left on an arc of a circle having a radius of eight hundred and twenty-seven feet and fifty one hundredths of a foot, a distance of one hundred and twenty-one feet and twenty-eight one hundredths of a foot, and thence still along said line of Valley Street North thirty-six degrees fifteen minutes East fifty feet and forty-four one hundredths

of a foot to the southerly line of Lakeside Avenue and point of Beginning. Being the same premises conveyed to National Phonograph Company (now named Thomas A. Edison, Incorporated) by deed from Edison Manufacturing Company, dated October 30, 1905, and recorded in the office of the Register of Deeds for Essex County in Book L-59 of Deeds for said County on pages 286-288.

Tract 2.

BEGINNING at a point in the southerly line of land formerly of Andrew O'Connor distant therein one hundred feet westerly from the westerly line of Ashland Avenue; thence along said O'Connor's line westerly fifty feet; thence southerly about parallel with Ashland Avenue thirty feet; thence easterly and parallel with the first mentioned line fifty feet to a point distant one hundred feet westerly from the westerly line of Ashland Avenue; thence northerly thirty feet to the place of Beginning. Being the same premises conveyed to National Phonograph Company (now named Thomas A. Edison, Incorporated) by deed from Susan I. Sexton and Cornelius E. Sexton, her husband, dated September 4, 1908, and recorded in the office of the Register of Deeds for Essex County in Book D-44 of Deeds for said County on pages 150-152.

Tract 3.

BEGINNING on the northerly side of Charles Street in the line of Lot No. 8 in Block G as laid down on Map No. 1 of property of D. M. Ropes; thence running along said Charles Street Westerly sixty feet; thence Northerly at right angles with said Charles Street sixty-five feet; thence Easterly parallel with said Charles Street sixty feet; and thence Southerly at right angles with said Charles Street sixty-five feet to said Charles Street and place of Beginning. Being the same premises conveyed to Thomas A. Edison, Incorporated by deed from Heman J. Redfield and Eva F. Redfield, dated March 27, 1912, and recorded in the Office of the Register of Deeds for

Essex County in Book P-52 of Deeds for said County on pages 336-339.

Tract 4.

BEGINNING at a point in the Easterly line of Valley Street or Road distant Twenty-five feet Northeasterly from the Northwesterly corner of land formerly belonging to the Estate of Aaron B. Harrison which beginning point is also the Northwesterly corner of land formerly conveyed to Mary Morris; thence along her line Southeasterly One Hundred and Fifty feet; thence North forty-eight degrees, twenty-two minutes East Twenty-five feet; thence Northwesterly One Hundred and Fifty feet to the said Valley Street or Road and thence along the same Southwesterly Twenty-five feet more or less to the line of said Morris and place of Beginning. Being the same premises conveyed to said Edison Storage Battery Company by George A. Poppa and Fannie M. Poppa, his wife, by deed dated May 23, 1913 and recorded in Book P-53 of Deeds for Essex County on pages 60-61.

Tract 5.

BEGINNING at a point in the easterly line of Valley Street or Road at the Northwesterly corner of land formerly belonging to the Estate of Aaron B. Harrison; thence running South thirty-eight degrees, fifty-six minutes East, one hundred and forty-eight feet and eighty hundredths of a foot; thence running North forty-eight degrees, twenty-two minutes East, twenty-five feet; thence running Northwesterly one hundred and fifty feet more or less to a point in the Easterly line of said Valley Street or Road distant along the line of said Street or Road twenty-five feet Northeasterly from the place of beginning; thence running Southwesterly along the Easterly line of said Valley Street or Road twenty-five feet to the place of Beginning. Being the same premises conveyed to said Edison Storage Battery Company by George A. Poppa and Fannie M. Poppa, his wife, by deed dated July 1, 1913 and recorded in Book P-53 of Deeds for Essex County on pages

61-63.

Tract 6.

BEGINNING on the southerly side of Lakeside Avenue at a point therein distant one hundred and fifty feet easterly from Ashland Avenue; thence running southerly on a line at right angles to Lakeside Avenue one hundred and sixty and seventy-five hundredths feet to land now or formerly of Henry Miller; thence running westerly along said Miller's line twenty-five feet and eighteen and one half hundredths of a foot to land now or formerly of Bernard Byrne; thence running along the land of said Bernard Byrne one hundred and fifty-seven feet and sixty-nine hundredths of a foot more or less to Lakeside Avenue; thence running easterly along the line of said Avenue twenty-five feet to the Beginning. Being the easterly half of lot No. 21, block H, as laid down on Map No. 1 of property of D. N. Ropes, and a part of the premises conveyed to said Edison Storage Battery Company by John Contrell and Jennie A. Contrell, his wife, by deed dated July 1, 1913 and recorded in Book F-53 of Deeds for said County on pages 63-65.

Tract 7.

BEGINNING on the southerly side of Lakeside Avenue at a point therein distant one hundred and fifty feet easterly from Ashland Avenue; thence running along said Lakeside Avenue easterly twenty-five feet; thence southerly at right angles with said Lakeside Avenue one hundred and sixty three feet and eighty hundredths of a foot to land now or lately of Henry Miller; thence along the same (being lot #24 on the map hereinafter referred to) twenty-five feet and eight hundredths of a foot to lot #21 and thence along the same at right angles with said Lakeside Avenue, northerly one hundred and sixty feet and nine inches to said Lakeside Avenue and place of Beginning, being the westerly half of lot #20 in Block H on Map #1 of property of D. N. Ropes, and part of the same premises conveyed to said

Edison Storage Battery Company by John Contrall and Jennie A. Contrall, his wife, by deed dated July 1, 1913, and recorded in Book F-53 of Deeds for said County on pages 63-65.

Tract B.

BEGINNING in the westerly line of the premises described in the deed from Estelle Joralemon to Mary Beirne, recorded in Book C 32 of Deeds for Essex County, on pages 201, etc., at a point distant fifty feet northerly from lands formerly of one Shrum and now of Thomas A. Edison, Incorporated (National Phonograph Company renamed), which beginning point is also distant one hundred and four feet and sixty-four hundredths of a foot from a point in the southerly side of Lakeside Avenue, one hundred feet east of Ashland Avenue; running thence southeasterly in a straight line parallel to Lakeside Avenue a distance of twenty-five feet to land formerly of one Patrick Drury and now of said Edison Storage Battery Company, thence southwesterly along said land of said Edison Storage Battery Company at right angles to Lakeside Avenue, a distance of fifty-one and eight tenths feet more or less to lands formerly of said Shrum and now of said National Phonograph Company and to the southern extremity of a triangular plot conveyed to said National Phonograph Company by deed dated April 5, 1907 and recorded in Book I 41 of Deeds for Essex County on pages 553 to 555; and thence northerly in a straight line along the eastern boundary of said triangular plot fifty-seven and one-half feet more or less to the place of Beginning. Being the same premises conveyed to said Edison Storage Battery Company by Mary Beirne and Bernard Beirne, her husband, by deed dated November 18, 1913 and recorded in Book Q-53 of Deeds for said County on pages 296-298.

Together with all the buildings and works now or hereafter erected upon the aforesaid tracts or parcels of land and premises, and all and singular the tenements, hereditaments and appurtenances thereto belonging.

in any wise appertaining, and the réversions and remainders, rents issues and profits thereof.

Second: All of the buildings, stacks, towers, tanks and other fixtures now owned or hereafter acquired by the Company on certain tracts or parcels of land situate in the Towns of Belleville and Bloomfield, in the County of Essex and State of New Jersey, which said tracts or parcels of land are leased or about to be leased by Thomas A. Edison to the Company.

Third: All patterns and drawings now owned or hereafter to be acquired by the Company and used in its business.

Fourth: All machinery, tools, furnaces, tanks, pumps, plating apparatus including cranes, electrical apparatus (including transformers, switch-boards, testing panels, rheostats, motors, generators and cables and wiring) boilers, coal and water handling apparatus, implements, fixtures, fittings and factory appliances, and other apparatus of whatever kind now owned or hereafter acquired by the Company and used by it in its manufacturing business.

Fifth: All office furniture and fixtures now owned or hereafter acquired by the Company and used by it in its business.

Sixth: All patents, patent applications and patent rights now owned or hereafter to be acquired by the Company including the following Letters Patent of the United States of America and applications for such Letters Patent:

PATENTS.

No. 692,507, granted Feb.	4, 1902, upon an application of Thomas A. Edison.
No. 700,136, granted May	13, 1902, upon an application of Thomas A. Edison.
No. 700,137, granted May	13, 1902, upon an application of Thomas A. Edison.
No. 701,904, granted June	3, 1902, upon an application of Thomas A. Edison.
No. 704,303, granted July	8, 1902, upon an application of Thomas A. Edison.
No. 704,304, granted July	8, 1902, upon an application of Thomas A. Edison.
No. 704,305, granted July	8, 1902, upon an application of Thomas A. Edison.
No. 704,306, granted July	8, 1902, upon an application of Thomas A. Edison.
No. 721,602, granted March	3, 1902, upon an application of Thomas A. Edison.
No. 723,449, granted March	24, 1902, upon an application of Thomas A. Edison.

No. 723,460, granted March 24, 1905, upon an application of Thomas A. Edison.
 No. 727,117, granted May 5, 1905, upon an application of Thomas A. Edison.
 No. 727,118, granted May 5, 1905, upon an application of Thomas A. Edison.
 No. 754,886, granted March 15, 1904, upon an application of Thomas A. Edison.
 No. 754,889, granted March 15, 1904, upon an application of Thomas A. Edison.
 No. 754,133, granted July 5, 1904, upon an application of Thomas A. Edison.
 No. 756,371, granted July 19, 1904, upon an application of J. W. Aylsworth.
 No. 767,554, granted August 16, 1904, upon an application of Thomas A. Edison.
 No. 761,857, granted Feb. 7, 1905, upon an application of J. W. Aylsworth.
 No. 765,297, granted March 21, 1905, upon an application of Thomas A. Edison.
 No. 797,946, granted August 22, 1905, upon an application of Thomas A. Edison.
 No. 813,491, granted Feb. 27, 1906, upon an application of Thomas A. Edison.
 No. 817,182, granted April 10, 1906, upon an application of J. W. Aylsworth.
 No. 817,182, granted April 10, 1906, upon an application of Thomas A. Edison.
 No. 821,032, granted May 22, 1906, upon an application of Thomas A. Edison.
 No. 821,023, granted May 29, 1906, upon an application of Thomas A. Edison.
 No. 821,584, granted May 29, 1906, upon an application of Thomas A. Edison.
 No. 821,525, granted May 29, 1906, upon an application of Thomas A. Edison.
 No. 821,526, granted May 29, 1906, upon an application of Thomas A. Edison.
 No. 821,527, granted May 29, 1906, upon an application of Thomas A. Edison.
 No. 821,528, granted May 29, 1906, upon an application of Thomas A. Edison.
 No. 827,297, granted July 21, 1906, upon an application of Thomas A. Edison.
 No. 831,259, granted Sept. 18, 1906, upon an application of Thomas A. Edison.
 No. 837,773, granted Dec. 4, 1906, upon an application of J. W. Aylsworth.
 No. 839,771, granted Dec. 25, 1906, upon an application of Thomas A. Edison.
 No. 850,465, granted April 14, 1907, upon an application of J. P. O'Connell.
 No. 850,914, granted April 23, 1907, upon an application of Thomas A. Edison.
 No. 852,424, granted May 7, 1907, upon an application of Thomas A. Edison.
 No. 854,200, granted May 21, 1907, upon an application of Thomas A. Edison.
 No. 857,041, granted June 18, 1907, upon an application of Thomas A. Edison.
 No. 857,929, granted June 25, 1907, upon an application of Thomas A. Edison.
 No. 860,195, granted July 16, 1907, upon an application of Thomas A. Edison.
 No. 861,242, granted July 23, 1907, upon an application of Thomas A. Edison.
 No. 862,145, granted August 6, 1907, upon an application of Thomas A. Edison.
 No. 865,697, granted Sept. 10, 1907, upon an application of Thomas A. Edison.
 No. 865,698, granted Sept. 10, 1907, upon an application of Thomas A. Edison.
 No. 870,254, granted Nov. 5, 1907, upon an application of Thomas A. Edison.
 No. 871,214, granted Nov. 19, 1907, upon an application of Thomas A. Edison.
 No. 873,220, granted Dec. 10, 1907, upon an application of Thomas A. Edison.
 No. 876,445, granted Jan. 14, 1908, upon an application of Thomas A. Edison.
 No. 879,512, granted Feb. 16, 1908, upon an application of Thomas A. Edison.
 No. 879,859, granted Feb. 25, 1908, upon an application of Thomas A. Edison.
 No. 880,454, granted Feb. 25, 1908, upon an application of Thomas A. Edison.
 No. 880,957, granted March 3, 1908, upon an application of J. W. Aylsworth.
 No. 880,978, granted March 3, 1908, upon an application of Thomas A. Edison.
 No. 880,979, granted March 3, 1908, upon an application of Thomas A. Edison.
 No. 882,154, granted March 17, 1908, upon an application of Thomas A. Edison.
 No. 895,611, granted August 25, 1908, upon an application of Thomas A. Edison.
 No. 895,612, granted August 25, 1908, upon an application of Thomas A. Edison.
 No. 898,405, granted Sept. 8, 1908, upon an application of Thomas A. Edison.
 No. 898,553, granted Sept. 15, 1908, upon an application of Thomas A. Edison.
 No. 914,342, granted March 2, 1909, upon an application of Thomas A. Edison.
 No. 914,343, granted March 2, 1909, upon an application of Thomas A. Edison.
 No. 914,372, granted March 2, 1909, upon an application of Thomas A. Edison.
 No. 936,435, granted Oct. 12, 1909, upon an application of Thomas A. Edison.

No. 936,525, granted Oct. 12, 1909, upon an application of Thomas A. Edison.
 No. 938,451, granted Oct. 26, 1909, upon an application of J. W. Aylsworth.
 No. 940,635, granted Nov. 10, 1909, upon an application of Thomas A. Edison.
 No. 945,540, granted Jan. 17, 1910, upon an application of Thomas A. Edison.
 No. 948,542, granted Feb. 8, 1910, upon an application of Thomas A. Edison.
 No. 948,558, granted Feb. 8, 1910, upon an application of Thomas A. Edison.
 No. 950,227, granted Feb. 22, 1910, upon an application of Thomas A. Edison.
 No. 955,517, granted April 26, 1910, upon an application of Thomas A. Edison.
 No. 976,791, granted Nov. 22, 1910, upon an application of Edison & Aylsworth.
 No. 976,792, granted Nov. 22, 1910, upon an application of Thomas A. Edison.
 No. 988,929, granted April 4, 1911, upon an application of J. P. Ott.
 No. 996,762, granted August 8, 1911, upon an application of Thomas A. Edison.
 No. 1012,558, granted Dec. 20, 1911, upon an application of Thomas A. Edison.
 No. 1015,674, granted Feb. 6, 1912, upon an application of Thomas A. Edison.
 No. 1034,002, granted July 30, 1912, upon an application of Thomas A. Edison.
 No. 1034,003, granted July 30, 1912, upon an application of Thomas A. Edison.
 No. 1036,471, granted August 20, 1912, upon an application of Thomas A. Edison.
 No. 1048,331, granted Nov. 26, 1912, upon an application of W. B. Holland.
 No. 1050,434, granted Jan. 14, 1913, upon an application of Thomas A. Edison.
 No. 1073,107, granted Sept. 16, 1913, upon an application of Thomas A. Edison.
 No. 1076,701, granted Nov. 12, 1913, upon an application of O. A. Rogers.
 No. 1085,505, granted Jan. 6, 1914, upon an application of Thomas A. Edison.
 No. 1093,353, granted Jan. 6, 1914, upon an application of Thomas A. Edison.
 No. 1115,453, granted Oct. 27, 1914, upon an application of Thomas A. Edison.
 No. 1116,393, granted Nov. 10, 1914, upon an application of M. R. Hutchison.
 No. 1117,493, granted Nov. 17, 1914, upon an application of M. R. Hutchison.
 No. 1130,977, granted March 9, 1915, upon an application of M. R. Hutchison.
 No. 1135,100, granted Dec. 21, 1915, upon an application of W. B. Holland.
 No. 1135,101, granted Dec. 21, 1915, upon an application of Hutchison & Horton.
 No. 1137,484, granted Jan. 11, 1916, upon an application of Thomas A. Edison.
 No. 1137,485, granted Jan. 11, 1916, upon an application of Thomas A. Edison.
 No. 1176,055, granted April 4, 1916, upon an application of Thomas A. Edison.
 No. 1187,148, granted June 13, 1916, upon an application of M. R. Hutchison.

Applications.

Serial No. 806,369, filed Dec. 13, 1913, by Heinrich H. Mene Kammerhoff for Current Supplying Apparatus.

Serial No. 817,494, filed Feb. 9, 1914, by Heinrich H. Mene Kammerhoff for Gas Filtering or Separating Valves. Patented July 11, 1916, No. 1,190,454.

Serial No. 817,493, filed Feb. 9, 1914, by Heinrich H. Mene Kammerhoff for Galvanic Batteries.

Serial No. 834,493, filed Apr. 25, 1914, by M. R. Hutchison for Storage Batteries.

Serial No. 840,462, filed May 29, 1914, by M. R. Hutchison and C. W. Horton for Storage Batteries.

Serial No. 851,765, filed July 16, 1914, by M. R. Hutchison for Filling Device or Valve for Storage Batteries or other Receptacles.

The correspondence of the two last of each batch when the first of the batch is the first of the batch.

Serial No. 856,527, filed Aug. 13, 1914, by Charles W. Horton for
Secondary or Storage Battery

Serial No. 4,125, filed Jan. 25, 1915, by Jerry Chasler for Power
Transmission Device.

Serial No. 62,901, filed Nov. 23, 1915, by James F. Monahan for
Electric Safety Lantern.

Serial No. 64,307, filed Nov. 20, 1915, by James F. Monahan for
Tray for Battery Cells.

Serial No. 65,127, filed Dec., 22, 1915, by Roscoe J. Smith for
Galvanic Batteries.

Seventh: The good will of the business of the Company and all
property, property rights and assets now owned or hereafter acquired by
the Company excepting the following, viz: the Company's current and working
assets, including Cash, Accounts Receivable, Bills Receivable, Notes Re-
ceivable, all raw and partly manufactured materials for use in the manufacture
of products by the Company, all work in process of such manufacture, all
products so manufactured or purchased to be sold by the Company in the course
of its business, and all earnings, profits and income lawfully used or to be
used for the payment of dividends to stockholders or for the creation of a
surplus, and it is expressly agreed that all property excepted as aforesaid
shall be free from the lien of this indenture, notwithstanding anything to
the contrary herein contained.

TO HAVE AND TO HOLD ALL and singular the above granted and de-
scribed premises, goods, chattels, and property, with the appurtenances
thereunto belonging, according to the several natures and characters thereof
unto the said Trustee, its successors and assigns, forever, IN TRUST, never-
theless, for the equal and proportionate benefit and security of all present
and future holders of the bonds, issued and to be issued hereunder, and for
the enforcement of the payment of such bonds, when payable, and to secure
the performance of and the compliance with the covenants and conditions of

this indenture, without preference, priority or distinction as to lien or otherwise, of any one bond over any other bond by reason of priority in the issue or negotiation thereof, or by reason of any other cause; so that each and every bond issued and to be issued as aforesaid shall have the same right, lien and privilege, under this indenture as every other bond, and so that the principal and interest of every such bond shall, subject to the terms hereof, be secured hereby equally and proportionately with every other bond as if all had been made, executed, delivered and negotiated simultaneously with the execution and delivery of this indenture; it being intended that the lien and security of this indenture and of all bonds issued hereunder shall take effect from the day of the date hereof as though upon such day all of such bonds were actually issued, executed and delivered to and were outstanding in the hands of innocent purchasers for value. And it is hereby expressly covenanted and declared that all of said bonds are to be issued, certified, delivered and held, and that the mortgaged property is to be held by the Trustee, subject to the following further covenants, conditions and provisions, namely:

ARTICLE I.

GENERAL PROVISIONS.

Section 1. The amount of bonds secured by this mortgage which may be issued by the Company and certified by the Trustee is limited to the aggregate principal sum of Two Million Dollars.

Section 2. Each of the bonds issued hereunder shall be substantially of the form and tenor hereinbefore set forth and for the principal sum of One Thousand Dollars (\$1,000). The dates of maturity of the several bonds shall be as follows, to wit:-

Nos.	1 to	30 inclusive shall mature September 1, 1917.
Nos.	31 to	60 inclusive shall mature March 1, 1918.
Nos.	61 to	90 inclusive shall mature September 1, 1918.
Nos.	91 to	120 inclusive shall mature March 1, 1919.

Nos. 121 to 150 inclusive shall mature September 1, 1919.
 Nos. 151 to 180 inclusive shall mature March 1, 1920.
 Nos. 181 to 210 inclusive shall mature September 1, 1920.
 Nos. 211 to 240 inclusive shall mature March 1, 1921.
 Nos. 241 to 270 inclusive shall mature September 1, 1921.
 Nos. 271 to 300 inclusive shall mature March 1, 1922.
 Nos. 301 to 330 inclusive shall mature September 1, 1922.
 Nos. 331 to 360 inclusive shall mature March 1, 1923.
 Nos. 361 to 390 inclusive shall mature September 1, 1923.
 Nos. 391 to 420 inclusive shall mature March 1, 1924.
 Nos. 421 to 450 inclusive shall mature September 1, 1924.
 Nos. 451 to 480 inclusive shall mature March 1, 1925.
 Nos. 481 to 510 inclusive shall mature September 1, 1925.
 Nos. 511 to 540 inclusive shall mature March 1, 1926.
 Nos. 541 to 570 inclusive shall mature September 1, 1926.
 Nos. 571 to 600 inclusive shall mature March 1, 1927.
 Nos. 601 to 630 inclusive shall mature September 1, 1927.
 Nos. 631 to 660 inclusive shall mature March 1, 1928.
 Nos. 661 to 690 inclusive shall mature September 1, 1928.
 Nos. 691 to 720 inclusive shall mature March 1, 1929.
 Nos. 721 to 750 inclusive shall mature September 1, 1929.
 Nos. 751 to 780 inclusive shall mature March 1, 1930.
 Nos. 781 to 810 inclusive shall mature September 1, 1930.
 Nos. 811 to 840 inclusive shall mature March 1, 1931.
 Nos. 841 to 870 inclusive shall mature September 1, 1931.
 Nos. 871 to 900 inclusive shall mature March 1, 1932.
 Nos. 901 to 930 inclusive shall mature September 1, 1932.
 Nos. 931 to 960 inclusive shall mature March 1, 1933.
 Nos. 961 to 990 inclusive shall mature September 1, 1933.
 Nos. 991 to 1020 inclusive shall mature March 1, 1934.
 Nos. 1021 to 1050 inclusive shall mature September 1, 1934.
 Nos. 1051 to 1080 inclusive shall mature March 1, 1935.
 Nos. 1081 to 1110 inclusive shall mature September 1, 1935.
 Nos. 1111 to 1140 inclusive shall mature March 1, 1936.
 Nos. 1141 to 1170 inclusive shall mature September 1, 1936.
 Nos. 1171 to 1200 inclusive shall mature March 1, 1937.
 Nos. 1201 to 1230 inclusive shall mature September 1, 1937.
 Nos. 1231 to 1260 inclusive shall mature March 1, 1938.
 Nos. 1261 to 1290 inclusive shall mature September 1, 1938.
 Nos. 1291 to 1320 inclusive shall mature March 1, 1939.
 Nos. 1321 to 1350 inclusive shall mature September 1, 1939.
 Nos. 1351 to 1380 inclusive shall mature March 1, 1940.
 Nos. 1381 to 1410 inclusive shall mature September 1, 1940.
 Nos. 1411 to 1440 inclusive shall mature March 1, 1941.
 Nos. 1441 to 2000 inclusive shall mature September 1, 1941.

Section 3. The bonds issued hereunder shall be issued in the name
 and on behalf of the Company by its Vice-President and Financial Executive
 and shall be sealed with its corporate seal, attested by its Secretary, and
 all coupons shall be authenticated by the facsimile signature of the present
 or any future Treasurer of the Company. The bonds and coupons so executed shall

be deemed obligatory for all purposes without regard to the fact that the officers executing said bonds or the officer whose facsimile signature shall appear on the coupons or any of them shall have ceased to be such officer at the date of the actual certification and issuance of said bonds.

Section 4. The bonds hereby secured shall be executed, certified and delivered as coupon bonds. Before certifying and delivering any bond hereby secured, all coupons thereof then matured shall be detached. The bonds shall be dated September 1, 1916. Only such of the bonds as shall bear thereon a certificate substantially of the form hereinbefore recited, duly executed by the Trustee, shall be secured by this indenture or shall be entitled to any benefit hereunder. No bond nor any coupon thereunto appertaining shall be valid for any purpose until such certificate shall have been duly endorsed on such bond. Every such certificate of the Trustee on any bond executed by the Company shall be conclusive and the only evidence that the bond so certified was duly issued hereunder and that the same is entitled to the trust hereby created.

Section 5. Unless registered as to principal, as herein provided, the bonds shall pass by delivery. The holder of any bond issued hereunder, however, may have the ownership thereof registered as to principal only in books to be kept by the Company for the purpose at its office in West Orange, Essex County, New Jersey. Such registry shall be noted on the bond, and thereafter no transfer thereof shall be valid unless made on such books by the registered owner in person or by his attorney duly authorized in writing and similarly noted on the bond; but such bond may be discharged from registry by being in like manner transferred to bearer and thereupon transferability by delivery shall be restored; and again from time to time any bond may be registered or transferred to bearer as before. Such registration, however,

shall not effect the negotiability of the coupons which shall always be transferred by delivery merely, and payable to bearer.

Section 6. In case any bond issued hereunder with the coupons thereto appertaining, shall become mutilated or be lost or be destroyed, the Company in its discretion may execute, and thereupon the Trustee shall certify and deliver a new bond of like tenor, date and amount and bearing the same serial number, in exchange and substitution for and upon cancellation of the mutilated bond and its coupons, or in lieu of and in substitution for the bond and its coupons so lost or destroyed, upon receipt of evidence satisfactory to the Company and to the Trustee of the loss or destruction of such bond and its coupons and upon receipt also of indemnity satisfactory to the Company and to the Trustee. The Trustee shall not be liable for anything done by it in good faith under the provisions of this section. At the time of delivery of any new bond pursuant to the provisions of this section, the owner of such mutilated or lost or destroyed bond shall reimburse the Company for any reasonable expense incurred by the Company, including counsel fees and the charges of the Trustee in connection with the execution and certification of such new bond, and also for any stamp tax or governmental charge incidental to the execution, certification and delivery of such new bond.

Section 7. Until said bonds have been engraved or lithographed in definitive form, the Company may issue and deliver in its discretion temporary bonds without coupons in lieu thereof, substantially of the tenor of the bonds to be issued as hereinbefore recited except in respect to denomination and with appropriate variations in form and denomination, and exchangeable for definitive bond or bonds of equal face value when ready for delivery. The temporary bonds so issued shall be payable to bearer and shall bear thereon certificates substantially in the form hereinbefore recited,

duly executed by the Trustee. Every temporary bond so issued shall be subject to all the provisions and entitled to all the security of this indenture and when and as any interest is paid upon such temporary bond, such payment shall be noted thereon.

Section 8. The bonds secured by this mortgage are and shall be redeemable on the first day of September, 1917 or at any interest date thereafter at one hundred and five percent (105%) of the face value thereof and accrued interest, at the pleasure of the Company expressed by resolution of its Board of Directors; said redemption to be made as follows:- Whenever the Board of Directors of the Company shall desire to redeem any of such bonds, they shall pass a resolution setting forth the amount of bonds (at their par value) desired to be redeemed, and the serial numbers of the bonds to be redeemed shall be drawn, by lot in such manner as the Trustee may determine, at least fifty days before the date upon which the bonds so drawn are to be redeemed, said drawing in each case to be made first only from the group of bonds then outstanding having the latest maturity date. If the number of bonds then outstanding of the group having the latest maturity date shall be equal to or less than the number of bonds which it is then desired to redeem, all of the then outstanding bonds of such group shall be redeemed, and any additional bonds which are to be then released shall be determined by drawing by lot from the serial numbers of the group having the next latest date of maturity, it being the intention in every case that no bond shall be drawn for redemption under the provisions of this paragraph so long as there is any bond having a later maturity outstanding and not drawn for redemption. When the numbers of the said bonds shall have been drawn as aforesaid, the Company shall cause notice to be published at least twice a week during the six weeks

next preceding the date upon which the bonds so drawn are to be redeemed and retired, in one daily newspaper published in the City of Newark, New Jersey, and the Borough of Manhattan, City of New York, N. Y., respectively giving the numbers of the bonds to be redeemed as aforesaid, and shall notify the registered holders of such of said bonds to be redeemed as are registered, by depositing such notice in the Post Office, postage prepaid, addressed to their addresses as the same appear on the books of the Company, six weeks before the time designated for redeeming and retiring said bonds, and the principal of such bonds to be so redeemed shall become due and payable on the next interest date following the date of the aforesaid drawing in the same manner as if such bonds had matured according to the conditions thereof, and on presentation and surrender of said bonds and all coupons thereof coming due after said interest date at the office of the Company at West Orange aforesaid, the principal of said bonds together with five percent (5%), thereof additional as a premium for advance payment shall be paid to the lawful holder thereof. If any of the said bonds so called shall not be presented for payment as aforesaid at the place and on the date that the same are made payable, the Company may deposit the aforesaid redemption price of said bonds with the Trustee in trust for the lawful owner of said bonds, and such deposit shall be deemed to be a redemption of such bonds and a full performance of this covenant so far as said bonds are concerned, and the Company shall be released and discharged from any further liability on account of said bonds and the coupons thereof thereafter becoming due.

Interest on bonds called for redemption under the provisions of this section shall cease and determine from and after the date appointed for their redemption.

ARTICLE II.

CONDITIONS OF THE ISSUE OF BONDS

At any time after the execution of this indenture the bonds issuable hereunder shall be executed by the Company and certified by the Trustee, either all at one time or from time to time, and when so certified shall be delivered to the Treasurer of the Company to be sold or otherwise disposed of by him at such price or for such purpose in conformity with this indenture as the Board of Directors by resolution may designate. The moneys realized from the sale of said bonds shall be used and applied as follows, to-wit: First, to the discharge of the outstanding bonded indebtedness of the Company which matured July 1, 1916, and then for the purposes set forth in the preamble hereof.

ARTICLE III.

PARTICULAR COVENANTS OF THE COMPANY.

Section 1. The Company will pay at its office in West Orange, Essex County, New Jersey, the principal of the bonds issued hereunder according to the tenor thereof when the principal shall become due and payable upon the surrender of the bonds and will pay also at said office the interest thereon according to the tenor of the coupons until the principal is paid, and without any deduction for any tax or taxes or stamp dues (other than succession, inheritance or estate taxes) which the Company or the Trustee may be required to pay thereon or to retain or deduct therefrom under any present or future law of the United States of America or of any State, County, Municipality or other taxing authority thereof. The interest on the bonds shall be payable only upon presentation and surrender of the several coupons for such interest, as they respectively mature.

Section 2. The Company covenants and agrees that when and as said bonds and interest coupons mature as therein and herein provided, the said bonds and the interest coupons shall be paid and cancelled respectively, and that no bonds or interest coupons in substitution therefor shall be issued, and that no purchase or sale of said interest coupons or of said bonds, or advance or loans upon the same made by or on behalf of, or at the request of, or with the privity of the Company, shall operate to keep the said bonds or said interest coupons, or any of them, alive or in force as against the holders of the other bonds issued hereunder and the interest coupons appertaining thereto, whether said other bonds and interest coupons be then matured or unmatured; nor shall the Company extend or consent to the extension of the time of payment of the principal of said bonds or of any interest coupon, and if such extension shall be made, such principal or such interest coupons shall be subject to the prior payment in full of the principal of the other bonds and interest coupons whose payment shall not have been extended, whether such bonds and interest coupons be then matured or unmatured.

Section 3. The Company will keep or cause to be kept at its office in West Orange, Essex County, New Jersey books in which may be registered or transferred any bond or bonds entitled to registration or transfer under the provisions of this indenture.

Section 4. The Company covenants that it is lawfully seized and possessed of the mortgaged premises and of the goods and chattels herein mortgaged, and that the same are free and clear of all encumbrances; that it has a good right and lawful authority to sell, assign, transfer, mortgage and convey the mortgaged premises as provided in and by this indenture; that it will warrant and defend the same to the Trustee for the benefit of

the holders of the bonds issued hereunder against the claims and demands of all persons whosoever; that this mortgage is and will always be kept a first lien upon all the mortgaged property, and similarly upon all renewals, substitutions and replacements of such property, and all additions, extensions, betterments and improvements thereto and thereof; and that it will not voluntarily create or suffer to be created, or allow to accrue or to exist any lien or charge having priority to or preference over the lien of this indenture upon the mortgaged property or any part thereof.

Section 5. The Company further covenants that it will duly record and file these presents as may be required by law in order to preserve the lien of the same as a mortgage of both real and personal property on all the mortgaged property, and will furnish evidence of such recording and filing to the Trustee, and will furnish similar evidence of the recording and filing of every additional instrument which shall be necessary to preserve the lien of such presents upon all such property until the principal and interest of all bonds hereby secured shall have been paid.

Section 6. The Company further covenants that it, its successors and assigns, and each and every person having or holding any estate, right, title or interest from the Company in and to the mortgaged property, will at its own expense from time to time on written demand of the Trustee, make, do execute, acknowledge and deliver all such acts, deeds, conveyances, assignments, mortgages or other instruments and assurances in the law as may be reasonably required for in all respects effectuating the intention of these presents, and for the better assuring or confirming unto the Trustee upon the trusts and for the purposes herein expressed, all the mortgaged property hereinabove described or hereafter to be

acquired. The Trustee may, at any time, accept any conveyance, mortgage, assignment or transfer of any property, real or personal, which any person or corporation may make and deliver to said Trustee for or on behalf of the Company; and the property so conveyed, mortgaged, assigned or transferred, if and when the conveyance, mortgage, transfer or assignment thereof shall be accepted by the Trustee, shall thereupon become subject to the lien of this indenture and a part of the mortgaged property.

Section 7. The Company from time to time will pay and discharge all taxes, assessments and governmental charges lawfully imposed upon the mortgaged property, and upon any part thereof, or upon the income and profits thereof, and also all taxes, assessments and governmental charges lawfully imposed upon the lien or interest of the Trustee therein so that the lien and property of this indenture shall be fully preserved at the cost of the Company without expense to the Trustee or the bondholders, and shall and will, when thereunto requested, provide and show the Trustee proper receipts and vouchers for such taxes. Should the Company fail to pay any such taxes, charges, assessments or liens, or suffer any lien to attach, the Trustee may pay and discharge the same (but the Trustee shall be under no duty so to do), and shall have a lien for any and all payments so made and for interest thereon prior to the lien of those presents on the mortgaged property, and the Company shall on demand repay all amounts paid by the Trustee for any such purpose with interest thereon; provided, however, that the Company shall have the right to contest in good faith by legal proceedings any such tax, assessment, or charge, and pending said contest may delay and defer the payment thereof unless, in the opinion of the Trustee, the rights and security of the holders of the bonds hereby secured shall be materially endangered.

Section 8. The Company covenants and agrees that it will so long as any of the bonds hereby secured are outstanding and unpaid, keep the buildings, machinery and appurtenances and all personal property hereby mortgaged or intended so to be insured in good and solvent companies against loss or damage by fire to the extent that such property is usually insured, and shall pay all premiums upon the insurance policies; all losses, if any, under such policies of insurance to be payable to the Trustee for the benefit of the several holders of the bonds hereby secured, and shall be used with the approval of the Company in repairing or replacing the property so damaged or destroyed, or expended for the betterment of the plant and in repairing and improving the other property covered by this mortgage. Instead of the foregoing provision for insurance protection, the Company may adopt such other plan or method of protection against loss by fire, whether by the establishment of an insurance fund or otherwise, as may be approved by its Board of Directors. The Company shall be required under all circumstances to maintain insurance as aforesaid upon the property hereby mortgaged to an amount equal to at least fifty percent (50%) of the outstanding bonds secured hereby.

Section 9. The Company covenants that it will at all times at its own expense, maintain and keep in good condition and repair the buildings and fixtures now or hereafter erected upon the mortgaged premises, and the machinery, tools, patterns, furnaces, tanks, pumps, fittings, appliances, apparatus, implements, office furniture and fixtures therein hereby mortgaged or intended so to be, and will repair or replace the same if damaged or destroyed by fire or the elements.

Section 10. The Company covenants that it will do all things which may be necessary or proper to carry out the purposes of this mortgage, and to keep the same in full force and effect, and to do all things which may be necessary or proper to carry out the purposes of this mortgage, and to do all things which may be necessary or proper to carry out the purposes of this mortgage.

necessary under the laws now in force or hereafter enacted to preserve its corporate organization during the term fixed by its charter, and that it will do no act by which it will incur a forfeiture of its corporate existence, and that it will duly observe all lawful statutes, rules, regulations and orders of any public authority having jurisdiction over the mortgaged property, or any part thereof.

Section 11. The Company will not negotiate, sell or dispose of any bonds hereby secured in any manner other than in accordance with the provisions of this indenture, and the agreements in that behalf herein contained; and in issuing, selling, negotiating or otherwise disposing of such bonds from time to time, it will well and truly apply or cause to be applied the proceeds thereof as herein provided, and in no other or different way; but no purchaser of any bond issued hereunder shall be under any obligation to see to the application of the proceeds thereof.

Section 12. The Company shall cause an annual audit to be made of its affairs, assets and business as of the last day of February of each year by a certified public accountant approved of by the Trustee, and deliver a copy thereof, signed by the auditor, to the Trustee not later than the first day of July in each year. Until the payment in full of the principal and interest of the bonds secured by this mortgage, no dividend shall be declared on the capital stock of the Company unless a copy of the audit for the preceding year, (ending the last day of February) shall have been delivered to the Trustee, and there shall be no dividend for any year on the said capital stock of the Company in excess of twelve percent (12%), unless it shall appear by the said audit that the surplus and undivided profits of the Company are equal in amount to the aggregate of the principal of the then

outstanding bonds secured by this mortgage, with the unpaid matured coupons of said bonds. And provided further that the aggregate of all dividends for any fiscal year shall not exceed fifty percent (50%) of the net profits arising from the business of the Company during the year for which such dividend or dividends is or are declared.

ARTICLE IV.

RIGHTS OF THE COMPANY UNTIL DEFAULT.

Section 1. Until the occurrence of one of the events of default specified in Section 2 of Article V of this indenture, the Company, its successors and assigns shall be suffered and permitted to retain and remain in full possession of the property, real and personal, hereby mortgaged, and shall be permitted to manage, operate and use the same and every part thereof with the rights appertaining thereto, and also to collect, receive, take, use and enjoy the earnings, income, rents, issues and profits thereof. Furthermore, the Company shall have the right at all times as the proper management of its business may require, to alter, change, add to, repair, remove and replace the machinery, patterns, drawings, tools, furnaces, tanks, pumps, plating, electrical and other apparatus, boilers, implements, fixtures, fittings, factory appliances, office furniture and fixtures and other appurtenances in the works and buildings now constructed or which shall hereafter be constructed and owned by the Company and conveyed or intended to be conveyed hereby to the Trustee, provided that the security of said bonds shall not thereby be in any wise reduced or impaired.

Section 2. At any time while the Company is not in default hereunder it may remove any building now or hereafter erected upon the mortgaged premises for the purpose of replacing the said building so removed with a

structure which shall cost not less to construct than the building so removed; provided that in each case before beginning the removal of the existing structure, the plans and specifications for the new proposed structure shall be submitted to and approved by the Trustee, and that the Company shall file with the Trustee a bond of indemnity satisfactory in form and sufficiency to the Trustee to cover the erection of said new building, free from any liens or claims incident to the construction thereof.

Section 3. The Company may, without the consent of the Trustee, sell or otherwise dispose of any of said machinery, patterns, drawings, tools, furnaces, tanks, pumps, plating, electrical and other apparatus, boilers, implements, fixtures, fittings, factory appliances, office furniture and fixtures and appurtenances and personal assets which are not necessary or required for the operation of its plant and property or for the carrying on of its business or which may hereafter become worn or damaged or otherwise unsuitable for any of its corporate purposes; provided, that it shall substitute therefor, subject to the lien of those presents and free from any prior lien or charges, property of approximately equal value so that the security of said bonds shall not thereby be in any wise reduced or impaired.

Section 4. The Company shall have the further right at all times to convey or exchange, free from the encumbrances and trusts hereof, all or any of the real estate now held or hereafter acquired by the Company which shall no longer be either useful or necessary in the proper management and maintenance of the business of the Company or of the property hereby conveyed, but in no case shall any sale or other disposition of such real estate be made without the express consent in writing of the Trustee, and

the Trustee is hereby expressly authorized to release from the operation and effect of this mortgage any property so sold or exchanged, whether the consideration of such sale be wholly cash or partly cash and partly secured by mortgage on the premises sold, but the property taken in exchange, if such there be, shall forthwith become and be liable under this mortgage as if the same had been originally included therein, and the net proceeds of real estate so released (if sold) shall be applied by the Company in good faith to the betterment or extension of the plants owned or controlled by it; provided, however, that if in the opinion of the Company it shall not be consistent with the best interests of the business of the Company to apply the whole or any part of such proceeds to such betterment or extension, then the Company shall have the right, to use the whole or any part of such proceeds remaining unexpended, for the redemption and retirement, in the manner provided for in Section 8 of Article I hereof, of outstanding bonds secured hereby.

Section 5. Until the occurrence of one of the events of default specified in Section 2 of Article V of this indenture, the Company and its successors shall have the exclusive right to make and use the inventions of the Letters Patent and applications for Letters Patent hereby mortgaged, and to sell apparatus, machines, manufactures and compositions of matter embodying the inventions thereof to the same extent as if this mortgage had not been made.

Whenever the Board of Directors of the Company shall determine by resolution that the Company considers it necessary or advisable to institute any suit or action for infringement of any of the patents hereby mortgaged or any renewals or extensions of the same, or of any patents which may hereafter be issued upon the applications for Letters Patent hereby mort-

gaged or any reissues or extensions of the same, and shall by resolution request, direct or authorize the institution of such suit or action, and shall furnish to the Trustee a certified copy of such resolution or resolutions, and shall indemnify the Trustee to its satisfaction against any and all liability of the Trustee for damage or loss because of the institution, prosecution and conduct of such suit or action, then and in such event the Trustee shall permit and authorize the Company to institute, prosecute and conduct such suit or action either in the name of the Company, the Trustee, or the Company and Trustee jointly, as counsel for the Company may advise, and in such event the Trustee shall execute such papers as counsel learned in the law may advise to be necessary or desirable for the instituting, prosecuting and conducting of such suit or action.

Notwithstanding the provisions in this mortgage contained, the Company shall have power to grant licenses under any and all of the patents hereby mortgaged and any and all reissues and extensions of the same and under any and all patents which may hereafter be issued upon any and all applications for Letters Patent hereby mortgaged and any and all reissues and extensions of the same, and the Trustee shall release its rights and title to the patent or patents under which such license or licenses are to be granted or to such portion of said rights as may be necessary to enable the Company to grant such license or licenses and shall reassign to the Company any such patent or patents or reconvey to it such portions of the rights in such patent or patents as may be necessary to enable the Company to grant such license or licenses, provided always that the Trustee shall not be required to make and deliver any such release, assignment or conveyance as herein provided for until the Company, through its Board of Directors, shall by resolution have determined that it is advisable and to

the best interest of the Company to grant such license or licenses and that the security of the bondholders under this mortgage will suffer no substantial diminution by the making of such grant of license or licenses, and by resolution shall request the Trustee to execute such release, assignment or conveyance and shall have delivered to the Trustee a certified copy of such resolution or resolutions.

Section 6. If the Company shall well and truly pay or cause to be paid the whole amount of the principal moneys and interest due upon all of the bonds and coupons for interest hereby secured at the time and in the manner and form therein and herein provided, and also shall pay or cause to be paid all other sums payable hereunder by the Company and shall well and truly keep and perform all things herein required to be kept and performed by it, according to the true intent and meaning of this indenture, then and in that case all the mortgaged premises and property shall revert to the Company, and all the estate, right, title and interest therein of the Trustee shall thereupon cease and determine; and the Trustee in such case, upon demand of the Company, but at the cost and expense of the Company, shall enter or cause to be entered satisfaction of this indenture upon the records; otherwise these presents shall be continued and remain in full force and virtue.

ARTICLE V.

REMEDIES OF TRUSTEE AND BONDHOLDERS IN CASE OF DEFAULT.

Section 1. No coupon belonging to any bond hereby secured which in any way at or after maturity shall have been transferred or presented separate and apart from the bond to which it relates shall, unless accompanied by such bond, be entitled in case of default hereunder to any benefit of or from this indenture except after the prior payment in full of

the principal of the bonds issued hereunder and of all coupons and interest obligations not so transferred or presented.

Section 2. In case of the happening of one or more of the following events hereinafter (after the lapse of the times respectively specified in the following subdivisions) called "Events of Default," that is to say:-

- (1) Default in payment of any installment of interest on any of the bonds hereby secured, when and as the same shall become payable as therein and herein expressed, which default shall have been continued for the period of sixty days.
 - (2) Default in the payment of the principal of any of the bonds hereby secured when the same shall become due and payable at the maturity of said bonds or otherwise.
 - (3) Default in the due observance or performance of Section 12 of Article III hereof.
 - (4) Default in the due observance or performance of any other covenant or condition herein required to be kept or performed by the Company, which default shall have continued for a period of three months after written notice thereof shall have been given to the Company by the Trustee or by the holders of ten percent. in amount of the bonds hereby secured and then outstanding.
 - (5) The actual or threatened demolition or removal of any building erected upon the mortgaged premises except as provided in Section 2 of Article IV hereof.
 - (6) A receiver of the property of the Company, or a Trustee in Bankruptcy shall have entered into possession of the mortgaged premises or any part thereof;
- Then and in each such case the Trustee may, and upon the written

request of the holders of one-third in amount of the bonds hereby secured and then outstanding, shall, by notice in writing delivered to the Company, declare the principal of all bonds hereby secured and then outstanding to be due and payable immediately, and upon any such declaration the said principal shall become and be due and payable immediately, anything in this indenture or in such bonds to the contrary notwithstanding.

This provision, however, is subject to the condition that if at any time after the principal of such bonds shall have been so declared due and payable and before any sale of the mortgaged premises and property shall have been made pursuant to the provisions of Section 4 of this Article, all arrears of interest upon all the bonds secured hereby, with interest on overdue installments of interest at the rate of six per cent per annum, together with all expenses and reasonable charges of the Trustee and all advances made by the Trustee in accordance with the terms and conditions of this indenture shall either be paid by the Company or be collected out of the mortgaged property, and all defaults as aforesaid shall have been made good, then and in such case the holders of a majority in amount of the bonds hereby secured and then outstanding, by written notice to the Company and to the Trustee, may waive such default and rescind or annul such declaration or its consequences; but no such waiver or rescission shall extend to or affect any subsequent default or impair any like consequence thereof.

Section 3. In case of the happening of any of the events of default specified in Section 2 of this Article, then and in each and every such case of default the Trustee, personally or by Attorney, may enter upon and take and maintain possession of all or any part of the mortgaged premises and property, and may exclude the Company, its Agents and servants, wholly therefrom, and as the Attorney in fact or Agent of the Company or

in its own name as Trustee, by any of its officers or by any agent duly appointed, or by managers, superintendents, receivers and servants may have, hold, use, manage, operate and enjoy the same and every part thereof to as full an extent as the Company might lawfully do, making from time to time all needful and proper additions, alterations and repairs and receive all the income, rents, issues and profits therefrom, and after deducting and defraying the expense of such use, operation, additions, alterations and repairs and the costs and charges of taking such possession and all payments which may be made for taxes, assessments, charges or liens prior to the lien of this indenture upon said mortgaged property, or any part or parcel thereof, or for insurance and any and all expenses incurred by the Trustee in the execution of any of the powers or trusts under these presents, together with any and all advances by the Trustee hereunder in accordance with the terms and conditions of this indenture, as well as reasonable remuneration for the services of the Trustee, its agents, attorneys, clerks and servants, the Trustee shall apply the residue of the moneys so received as follows:-

1. If the principal of all the bonds then outstanding hereunder shall not at the time of such default have become due and payable by reason of maturity of all such bonds or by declaration as authorized by Section 2 of this Article, then to the payment of interest then in arrears and payable on all the bonds in the order in which the installments of such interest shall have become due and payable, with interest at the rate of six per cent. per annum on such overdue installments of interest, and next, to the payment of the principal of such bonds as shall have matured and become due and payable in the order in which such bonds shall have become due and payable, with interest on the overdue principal at the rate of six per cent. per annum, subject, however, to the provisions of Section 1 of this Article.

2. If the principal of all the bonds then outstanding hereunder shall, at the time of such default have become due and payable, either by reason of maturity thereof or by declaration as authorized by Section 2 of this Article, then ratably to the payment of said principal and of the interest then due and accrued on said bonds, with interest at the rate of six percent, per annum on the overdue installments of principal and interest, but without preference or priority of principal over interest or interest over principal, subject, however, to the provisions of Section 1 of this article.

And, in case all such payments, expenses and indemnity shall be completely made or furnished and there shall have been no default in respect to Section 12 of Article III of this agreement, and every other default of the Company shall have been made good before any foreclosure and sale, the Trustee, after making such provision as it may deem advisable for the payment of the principal of the next maturing bonds, and for the payment of the next semi-annual installment of interest upon all the bonds, shall restore to the Company possession of the mortgaged premises and properties so entered upon and taken possession of by the Trustee, and the same shall thenceforth be subject to the provisions of these presents in the same manner as if such entry had not been made.

Section 4. Upon the happening of any event of default as defined in Section 2 of this Article, the Trustee, personally or by attorney, with or without taking possession of the mortgaged premises and property (1) may sell to the highest and best bidder, all and singular, the mortgaged premises and property and all right, title, interest, claim and demand therein and the right of redemption thereof in one lot and as an

entirety, or in separate lots as the Trustee shall deem best, which sale shall be made at public auction at such price or prices and at such time and times and upon such terms as the Trustee may fix and briefly specify in the notice of sale to be given as herein provided or as may be required by law; or (2) may proceed to protect and to enforce its rights and the rights of the bondholders under this indenture by a suit or suits in equity or at law, whether for the specific performance of any covenant or agreement contained herein or in aid of the execution of any power herein granted, or for a foreclosure hereunder, or for the enforcement of any other appropriate legal or equitable remedy as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce any of the rights or duties hereunder; or (3) may proceed by both such sale and by such suit or suits.

Section 5. The purchase money, proceeds and avails of any such sale of the mortgaged property or any part thereof, together with any other sums which then may be held by the Trustee under any of the provisions of this indenture as a part of the mortgaged property, or of the proceeds thereof, shall be applied as follows:

1. To the payment of the costs and expenses of the foreclosure or other proceedings in connection with such sale, including a reasonable compensation to the Trustee, its agents, attorneys and counsel, and of all other expenses, liabilities and advancements made or incurred by the Trustee hereunder.
2. To the payment of the whole amount then owing or unpaid upon the bonds hereby secured and then outstanding, for principal and interest, with interest at the rate of six per cent. per annum on the overdue installments of principal and interest, and in case such proceeds shall be

insufficient to pay the whole amount so due and unpaid, then to the payment of such principal and interest, without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of the principal of any one bond over any other bond, ratably to the aggregate of such principal and the accrued and unpaid interest upon presentation of the several bonds and coupons, and stamp thereon such payment if only partially, and upon surrender thereof if fully paid, subject, however, to the provisions of Section 1 of this Article; and

3. The surplus, if any, shall be paid to the Company, its successors or assigns, or to whomsoever may be lawfully entitled to receive the same.

Section 6. Upon the written request of the holders of one-third in amount of the bonds hereby secured and then outstanding, in the case of the happening of any event of default as specified in Section 2 of this Article, it shall be the duty of the Trustee upon being indemnified as hereinafter provided, to take all steps needful for the protection and enforcement of its rights and the rights of the holders of the bonds hereby secured; and to exercise the power of entry or sale herein conferred, or both, or take appropriate judicial proceedings by action, suit or otherwise, as the Trustee, being advised by counsel, shall deem most expedient in the interest of the holders of the bonds hereby secured; but anything in this indenture to the contrary notwithstanding, the holders of two-thirds of the amount of the bonds hereby secured and then outstanding from time to time shall have the right to direct and to control the action of the Trustee and the method and place of conducting all proceedings for any sale of the premises and property subject to this indenture, or for the foreclosure of

this indenture, or the appointment of a Receiver, or any other proceedings hereunder.

Section 7. In case the Trustee shall have proceeded to enforce any right under this indenture by foreclosure, entry, or otherwise, and such proceedings shall have been discontinued or abandoned because of the waiver mentioned in Section 2 of Article V hereof, or for any other reason, or shall have been determined adversely to the Trustee, then, and in every such case, the Company and Trustee shall be restored to their former position and rights hereunder in respect to the mortgaged premises and property and all rights, remedies and powers of the Trustee shall continue as though no such proceedings shall have been taken.

Section 8. Notice of any sale pursuant to any provision of this indenture shall state the time and place when and where the same is to be made, and shall contain a brief description of the property to be sold and such other particulars, if any, as may be required by law, and shall be sufficiently given if published once in each week for four successive weeks prior to such sale in a newspaper published in the City of Newark, New Jersey, and in a newspaper published in the Borough of Manhattan in the City and State of New York, and in such other manner as may be required by law.

Section 9. The Trustee from time to time may adjourn any sale to be made under the provisions of this indenture by announcement at the time and place appointed for such sale or for such adjourned sale or sales; and without further notice or publication except such, if any, as may be required by law, may make such sale at the time and place to which the same shall be so adjourned.

Section 10. Upon the completion of any sale or sales under this indenture, the Trustee shall execute and deliver to the accepted purchaser or purchasers a good and sufficient deed or good and sufficient deeds and other instruments conveying, assigning and transferring the property so sold. The Trustee is hereby appointed the true and lawful attorney of the Company in its name and stead to make all necessary conveyances and assignments of the property thus sold; and for that purpose it may execute all necessary deeds and instruments of assignment and transfer and may substitute one or more persons with like power; the Company hereby ratifying and confirming all that its said attorney, or such substitute or substitutes shall lawfully do by virtue hereof.

Any such sale or sales made under or by virtue of this indenture, whether under the power of sale herein granted and conferred or under or by virtue of judicial proceedings shall operate to divest all right, title, interest, claim and demand whatsoever either at law or in equity of the Company, of, in and to the premises and property so sold, and shall be a perpetual bar, both at law and in equity, against the Company, its successors and assigns, and against any and all persons claiming or to claim the premises or property sold or any part thereof from, through or under the Company, its successors or assigns. The receipt of any person authorized to receive payment of the purchase money paid at any such sale shall be a sufficient discharge therefor to any purchaser of the property or any part thereof sold as aforesaid; and after paying such purchase money and receiving such receipt no such purchaser or his representatives, grantees, or assigns, shall be bound to see to the application of such purchase money upon or for any trust or purpose of this indenture, or in any manner whatsoever shall be answerable for any loss, misapplication or non-application

of any such purchase money or any part thereof or shall be bound to inquire as to the authorization, necessity, expediency or regularity of any such sale.

Section 11. In the case of sale under or by virtue of this indenture, whether made under the power of sale herein granted or pursuant to judicial proceedings, the principal of all the bonds hereby secured, if not previously due, shall at once become and shall be due and payable, anything in said bonds or in this indenture to the contrary notwithstanding.

Section 12. Upon any sale as aforesaid by the Trustee, or pursuant to judicial proceedings, the Trustee or any bondholder or any other person, may bid for and may become the purchaser of the property offered for sale, or any part thereof, for themselves or himself, without accountability in respect thereof, except for payment of the purchase price and compliance with the terms of sale. In settlement or payment of such purchase price, any purchaser upon presenting any of said bonds or interest coupons shall be entitled to be credited on account of the purchase price with a sum which would, upon a proper distribution and accounting of the proceeds of the sale, as herein provided, and after providing in cash for all costs, expenses and proper charges of the Trustee hereunder, be equal to the distributive share payable out of such proceeds to the holder of the bonds or coupons so presented, which amount so credited shall be stamped or indorsed on such bonds or coupons so presented, as paid thereon.

Section 13. The Company will not at any time insist upon or plead or in any manner whatever claim or take the benefit or advantage of any stay or extension of law now or at any time hereafter in force, nor will

it claim, take or insist upon any privilege or advantage from any law now or hereafter in force providing for the valuation or appraisement of the property, or any part of the property, subject to this indenture prior to any sale or sales thereof to be made pursuant to any provision herein contained or to the decree, judgment or order of any court of competent jurisdiction, nor after any such sale or sales will it claim or exercise any right under any statute or otherwise to redeem the property so sold or any part thereof, and it hereby expressly waives all benefit and advantage of any such law or laws, and it covenants that it will not hinder, delay or impede the execution of any power herein granted and delegated to the Trustee, but that it will suffer and perform the execution of every such power as though no such law had been made or enacted.

Section 14. Upon filing a bill in equity or upon commencement of any other judicial proceedings to enforce any right of the Trustee or of the bondholders under this indenture, the Trustee shall be entitled to exercise the right of entry and also any and all other rights and powers herein conferred, and provided to be exercised by the Trustee upon the terms and conditions of default as herein provided; and as a matter of right the Trustee shall be entitled to the appointment of a receiver of the premises and property subject to this indenture and of the earnings, income, rents, issues and profits thereof, with such powers as the Court making such appointment shall confer.

Section 15. No holder of any bond or coupon thereon hereby secured shall have any right to institute any suit, action or proceeding in equity or at law for the foreclosure of this indenture or for the execution of any trust hereunder or for the appointment of a receiver or for any other

remedy hereunder unless the holders of one-third in amount of the bonds hereby secured then outstanding shall have made written request upon the Trustee to take action in respect of the matter complained of, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the power hereinbefore granted or to institute such action, suit or proceeding in its own name; nor unless also they shall have offered to the Trustee security and indemnity satisfactory to it against the costs, expenses and liabilities to be incurred therein or thereby; nor shall any request as aforesaid be binding upon the Trustee or operative in accordance with the provisions of this indenture until, if required by the Trustee, the bonds of the holder or holders making such request are submitted to it for inspection or title thereto satisfactorily established, if disputed; nor unless the Trustee shall refuse or neglect to act upon such notice, request or indemnity, and such notification, request and offer of indemnity are hereby declared in every case, at the option of the Trustee, to be conditions precedent to the execution of the powers and trusts of this indenture for the benefit of the bondholders and to any action or course of action for foreclosure or for the appointment of a Receiver or for any other remedy hereunder; it being understood and intended that no one or more holder or holders of bonds or coupons, shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the lien of this indenture, or to enforce any right hereunder except in the manner herein provided, and that all proceedings at law or in equity shall be instituted, had and maintained in the manner herein provided and for the equal benefit of all holders of such outstanding bonds.

All rights of action under this indenture or under any of said bonds enforceable by the Trustee, may be enforced by the Trustee without

the possession of any such bonds or the production thereof on the trial or other proceedings relative thereto, and any such suit or proceedings instituted by the Trustee may be brought in its own name, and any recovery shall be for the ratable benefit of the holders of said bonds.

Section 16. Except as herein expressly provided to the contrary, no remedy herein conferred upon or reserved to the Trustee or to the holders of the bonds hereby secured is intended to be exclusive of any other remedy or remedies, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing in law or in equity or by statute.

Section 17. No delay or omission of the Trustee or of any holder of bonds hereby secured to exercise any right or power accruing upon any default continuing as aforesaid shall impair any such right or power or shall be construed to be a waiver of any such default or an acquiescence therein, and every power and remedy given by this Article to the Trustee and to the bondholders may be exercised from time to time and as often as shall be deemed expedient by the Trustee or by the bondholders.

ARTICLE VI. CONCERNING BONDHOLDERS.

Section 1. Any request, direction or other instrument required by this indenture to be signed and executed by the bondholders may be in any number of concurrent writings of the same tenor and may be signed and executed by such bondholders, in person or by agent appointed in writing. Proof of the execution of any such request, direction or other instrument, or of the writing appointing any such agent, if made in the following manner,

shall be sufficient for any purpose of this indenture, and shall be conclusive in favor of the Trustee with regard to due action by them or either of them taken under such request:-

The fact and date of the execution by any person of any such writing may be proved by the certificate of any officer in any jurisdiction, who by the laws thereof, has power to take acknowledgments of deeds to be recorded in such jurisdiction, that the person signing such writing acknowledged before him the execution thereof; or by an affidavit of a witness to such execution.

The fact of the holding of bonds hereunder by any bondholder, and the amount and numbers of any such bonds and the date of his holding the same, may be proved by a certificate executed by any trust company, bank, bankers or other depository (wherever situated), if such certificate shall be deemed by the Trustee to be satisfactory, showing that at the date therein mentioned such person had on deposit with such trust company, bank, banker or other depository the bonds described in such certificate. The ownership of bonds registered as to principal shall be proved by the register of bonds.

Section 2. The Company and Trustee may deem and treat the bearer of any bond hereby secured which shall not at that time be registered as to principal, as hereinbefore authorized, or which shall be registered to bearer, and the bearer of any coupon for interest on any such bond, whether such bond be registered as to principal or not, as the absolute owner of such bond or coupon, as the case may be, for the purpose of receiving payment thereof and for all other purposes; and neither the Company nor the Trustee shall be affected by any notice to the contrary.

The Company and the Trustee may deem and treat the person in whose name any bond hereby secured shall be so registered as to principal as the absolute owner thereof for the purpose of receiving payment of or on account of the principal thereof, and for all other purposes except to receive payment of interest represented by outstanding coupons; and all such payments so made to any registered holder for the time being or upon his order shall be valid and effectual to satisfy and discharge the liability upon any such bond to the extent of the sum or sums so paid.

ARTICLE VII.

LIMITATION OF OFFICERS, STOCKHOLDERS AND DIRECTORS.

No holder of any bond or coupon issued hereunder and secured hereby shall in any event have any right of recourse to or recovery from any past, present or future stockholder, officer or director of the Company for the principal or interest of the sums secured hereby, or any part thereof, whether under any liability now or hereafter existing or arising under any statute in any manner whatever, it being hereby distinctly understood and agreed that the several holders of the bonds from time to time waive all such rights of recourse or recovery by receiving and accepting said bonds.

ARTICLE VIII.

CONCERNING THE TRUSTEE.

Section 1. The Trustee accepts the trusts of this indenture and agrees to execute them upon the following terms and conditions to which the parties and the holders of the bonds hereby secured agree:

- (1) The Trustee shall be under no obligation to see to the record, registry or filing of this indenture.

(2) The recitals of fact contained in this mortgage or deed of trust and in the bonds thereby secured shall be taken as statements by the Company and shall not be construed as made by the Trustee.

(3) The Trustee shall be protected in acting upon any notice, request, consent, certificate, bond or other paper or document believed by it to be genuine and to have been signed by the proper party and by the proper authority.

(4) The Trustee shall be entitled to reasonable compensation for all services rendered by it and may employ suitable agents and attorneys, and the Company shall pay such compensation as well as all disbursements and expenses incidentally incurred and actually disbursed hereunder, and all payments by it made under the authority of this indenture, and until paid the said Trustee shall have a lien for the same upon the mortgaged property paramount to the lien of the bonds. The Trustee shall also be reimbursed and indemnified by the Company against any liability or damage which it may sustain or incur in the premises and for the same shall have a lien upon the trust estate paramount to the lien of the bonds.

(5) The Trustee shall not be responsible for any neglect, omission or other wrong doing of any agents or attorneys selected by it with reasonable care, nor shall it be otherwise answerable, save for its own willful misconduct.

(6) The Trustee shall not be under any obligation to take any action toward the execution or enforcement of the trusts hereby created which, in its opinion, will be likely to involve it in expense or liability unless one or more of the bondholders shall, as often as required by the Trustee, furnish it reasonable security and indemnity against such expense or liability; nor shall the Trustee be required to take any action in

respect of any default hereunder involving expense or liability unless requested by an instrument in writing, signed by the holders of not less than one-third in amount of the bonds then outstanding, and unless tendered reasonable security and indemnity as aforesaid, anything herein contained to the contrary notwithstanding. But neither any such notice or request nor this provision therefor shall affect any discretion herein given to the Trustee to determine whether or not it shall take action in respect to such default or to take action without such request.

(7) The Trustee shall not be responsible for the execution or validity hereof or of the bonds executed or to be executed hereunder and secured hereby, nor for the sufficiency of the security provided herein.

(8) The Trustee may advise with legal counsel and any action under this indenture taken or suffered in good faith by the Trustee in accordance with the opinion of counsel shall constitute full protection to the Trustee.

(9) The Trustee shall not be chargeable with notice of any default under this mortgage or deed of trust except upon delivery to it of a distinct specification in writing of such default by some person or persons interested in the trust whose interest if required must be proved to the reasonable satisfaction of the Trustee.

(10) The Trustee shall not be bound to recognize any person as a bondholder unless or until his bonds are submitted to the Trustee for inspection, if required, and his title satisfactorily established if in dispute.

(11) Whenever request or demand shall be made upon the Trustee by bondholders to perform any act of any character under this mortgage, or to proceed with any remedy prescribed by this mortgage in case of any

default or otherwise, and such request or demand shall specify the action or proceeding to be taken, it shall be discretionary with the Trustee, except as set forth in Section 4 and Section 5 of Article V hereof, to do the thing, take the action, enforce the remedy requested, or specified, or to perform any other action or institute any other suits or proceedings, or enforce any other remedy which may be appropriate under the then existing circumstances.

Section 2. The Trustee may resign and be discharged from the trusts created by this indenture by giving to the Company notice in writing of such resignation, specifying a date when such resignation shall take effect, which notice shall be published at least once, on a day not less than twenty days nor more than thirty days prior to the date so specified, in a daily newspaper of general circulation at the time published in the City of Newark, New Jersey, and the Borough of Manhattan, City and State of New York respectively. Such resignation shall take effect upon the day specified in such notice unless previously a successor Trustee shall be appointed as hereinafter provided, in which event such resignation shall take effect immediately upon the appointment of such successor Trustee.

The Trustee, or any successor Trustee, may be removed at any time by an instrument in writing under the hands of the holders of two-thirds in amount of the bonds at the time outstanding, or their attorneys thereunto fully authorized.

Section 3. In case at any time the Trustee or any successor Trustee shall resign or shall be removed or otherwise shall become incapable of acting, or in case a vacancy shall arise from any cause in the Trusteeship under this indenture, a successor or successors may be

appointed by the holders of a majority in amount of the bonds then outstanding by an instrument or concurrent instruments signed by such bondholders or their attorneys in fact duly authorized; but until a new Trustee shall be appointed by the bondholders as herein authorized the Company, by an instrument executed by order of its Board of Directors, may appoint a Trustee to fill such vacancy. Any Trustee appointed under any of the provisions of this Article shall be a Trust Company, if there be such willing and able to accept the trust. The Company shall publish notice of such appointment once in each week for two successive calendar weeks in a newspaper of general circulation published in the City of Newark, New Jersey, and the Borough of Manhattan, City and State of New York respectively. Any new Trustee so appointed by the Company shall immediately, and without further act, be substituted by a new Trustee or Trustees appointed in the manner above provided by a majority of the bondholders if such appointment by such bondholders be made prior to the expiration of twelve months after the completion of such publication of notice.

Any successor Trustee appointed hereunder shall execute, acknowledge and deliver to the Company an instrument accepting such appointment hereunder and thereupon such successor Trustee, without any further act, deed or conveyance, shall become vested with all estates, properties, rights, powers, trusts, duties and obligations of its predecessor in the trust hereunder, with like effect as if originally named as Trustee herein; but nevertheless on the written request of the successor Trustee or of the Company, the Trustee ceasing to act shall execute and deliver an instrument transferring to such successor Trustee upon the trusts herein expressed all the estates, properties, rights, powers and trusts of the Trustee so ceasing to act upon payment of its reasonable charges, expenses and disbursements;

and upon request of any such successor Trustee the Company shall make, execute, acknowledge and deliver any and all deeds, conveyances or other instruments in writing for more fully and certainly vesting in and confirming to such successor Trustee all such estates, properties, rights, powers, trusts and duties. All the conveyances and instruments herein provided for shall be at the cost of the Company.

ARTICLE IX

MISCELLANEOUS PROVISIONS.

Section 1. All the covenants, conveyances, stipulations, promises, undertakings and agreements herein contained by or on behalf of the Company shall bind or inure to the benefit of its successors and assigns, whether so expressed or not.

Section 2. Nothing in this indenture expressed or implied is intended or shall be construed to confer upon or to give to any person or corporation other than the parties hereto and the holders of the bonds issued hereunder any right, remedy or claim under or by reason of this indenture, or of any covenant, condition or stipulation hereof; and all covenants, stipulations, promises and agreements in this indenture contained, by or on behalf of the Company, shall be for the sole and exclusive benefit of the parties hereto and of the holders of the bonds issued hereunder.

IN WITNESS WHEREOF, EDISON STORAGE BATTERY COMPANY has caused these presents in quadruplicate to be signed by its President and its corporate seal to be hereunto affixed, duly attested by its Secretary, and in testimony of its acceptance of the trusts hereby created, FIDELITY

TRUST COMPANY, of Newark, New Jersey, has caused these presents to be signed by its President or a Vice-President and its corporate seal to be hereunto affixed, duly attested by its Secretary or an Assistant Secretary, the day and year first above written

EDISON STORAGE BATTERY COMPANY,

By _____

President.

Attest:

Secretary.

FIDELITY TRUST COMPANY,

By _____

President.

Attest:

Secretary.

STATE OF NEW JERSEY)
COUNTY OF MURRAY) SS.:

BE IT REMEMBERED that on this _____ day of _____, in the year of our Lord One Thousand Nine Hundred and Sixteen, before me, a Notary Public of the State of New Jersey, personally appeared THOMAS A. EDISON, who, I am satisfied, is President of Edison Storage Battery Company, the corporation named in the foregoing indenture of mortgage, and I having first made known to him the contents thereof, he acknowledged that he signed the same as such officer, and that the same was made by said corporation, sealed with its corporate seal, and delivered as its voluntary act and deed; all by virtue of authority from its Board of Directors. All of which is hereby certified.

STATE OF NEW JERSEY)
) ss.:
COUNTY OF ESSEX)

BE IT REMEMBERED that on this _____ day of _____, in the year of our Lord One Thousand Nine Hundred and Sixteen, before me, _____ personally appeared _____ who, I am satisfied, is _____ of Fidelity Trust Company, the corporation named in the foregoing indenture of mortgage, and I having first made known to him the contents thereof, he acknowledged that he signed the same as such officer, and that the same was made by said corporation, sealed with its corporate seal, and delivered as its voluntary act and deed; all by virtue of authority from its Board of Directors. All of which is hereby certified.

STATE OF NEW JERSEY)
 : SS.:
COUNTY OF ESSEX)

_____, of full age, being duly sworn

according to law, on his oath says that he is
of FIDELITY TRUST COMPANY, the mortgagee in the foregoing mortgage named
and is duly authorized agent in its behalf; that the true consideration
of said mortgage is the issue of temporary bonds aggregating in par value
the sum of Two Million Dollars, which said bonds have been issued by
Edison Storage Battery Company, a corporation organized under the laws of
the State of New Jersey, for the purposes set forth in said mortgage, and
have been certified by Fidelity Trust Company pursuant to the requirements
of the said mortgage for the purposes therein set forth, said temporary
bonds being exchangeable for definitive bond or bonds of equal face value
when said definitive bonds are ready for delivery as in said mortgage
provided for; and that the amount due and to grow due on said mortgage
is the sum of Two Million Dollars with interest which may have accrued
according to the terms of said mortgage and which may not have been paid.

Sworn to and subscribed before me
this _____ day of _____ 1916.

Edison Storage Battery Co.

THOMAS A. EDISON PRESIDENT
 S. B. HANBERRY VICE PRESIDENT AND
 MANAGING DIRECTOR
 ROBERT A. EDISON VICE PRESIDENT AND
 MANAGING DIRECTOR
 H. S. THOMPSON VICE PRESIDENT AND
 MANAGING DIRECTOR
 A. F. MILLER TREASURER
 ARTHUR MUDD SECRETARY

TRADE MARK
Thomas A. Edison

ORANGE, N. J. U.S.A.

CHARLES EDISON
 DIRECTOR
 OF THE BOARD

CABLE ADDRESS
 "EDISON" NEW YORK

IN REPLYING
 ADDRESS THE COMPANY
 AND REFER TO

November 19, 1917.

Mr. Thomas A. Edison,
 Llewellyn Park,
 West Orange, N. J.

Dear Sir:

Pursuant to resolution adopted at a meeting of the Board of Directors of Edison Storage Battery Company, held this day, notice is given that a special meeting of the stockholders of said company is hereby called to be held at the principal office of the company, corner of Valley Road and Lakeside Avenue, West Orange, New Jersey, on Thursday, November 22, 1917, at ten o'clock a.m.

The objects of the meeting are to act upon certain resolutions adopted by the Board of Directors of the Company at a meeting held this day, recommending that the capital stock of the Company be increased from \$8,500,000 to \$9,000,000, divided into \$2,000,000 of preferred stock and \$7,000,000 of common stock by changing 5,000 shares of the common stock not yet issued into an equal number of shares of preferred stock of the par value of \$100 each, and by creating 15,000 additional shares of such preferred stock, and that to this end the certificate of incorporation as heretofore amended be further amended to empower the directors of the Company to issue said preferred stock up to the amount of \$2,000,000, if and when authorized; to ratify the acceptance by the Board of Directors of the offer of the holders of the Company's first mortgage five percent gold bonds now outstanding to sell such bonds to the Company at par plus accrued interest; and to transact such other business as may properly come before the meeting.

A certified copy of the resolutions adopted by the Board of Directors at its meeting held today is enclosed herewith.

Arthur Mudd
 Secretary.

[ENCLOSURE]

I, ARTHUR NUDD, Secretary of Edison Storage Battery Company do hereby certify that the following is a full, true and correct copy of certain resolutions adopted at a meeting of the Board of Directors of Edison Storage Battery Company, held Monday, November 19, 1917, at 10:00 o'clock A. M. at the principal office of the Company, corner Valley Road and Lakeside Avenue, West Orange, New Jersey.

WHEREAS, Article "Fourth" of the Certificate of Incorporation of the Company filed in the office of the Secretary of State on or about the 27th day of May, 1901, reads as follows:-

"FOURTH: The total authorized capital stock of this corporation is One Million Dollars divided into ten thousand shares of the par value of One Hundred Dollars each."

and

WHEREAS, the capital stock of the Company was thereafter increased from \$1,000,000 to \$3,500,000, said additional stock being like in all respects the stock of the Company authorized in said certificate of Incorporation filed on or about the 27th day of May, 1901, a certificate of such increase of capital stock having been filed in the office of the Secretary of State on or about the 7th day of October, 1910; and

WHEREAS, in excess of five thousand shares of said common stock have not yet been issued;

NOW, THEREFORE, BE IT RESOLVED that it is advisable that the capital stock of the Company be increased from \$3,500,000 to \$5,000,000 divided into \$2,000,000 of preferred stock and \$3,000,000 of common stock by changing five thousand shares of the common stock not yet issued into an equal number of shares of preferred stock of the par value of \$100 each and by creating fifteen thousand additional shares of such preferred stock, and that to this end it is advisable to amend further the said certificate of Incorporation filed on or about May 27th, 1901 so that said Article "Fourth" as heretofore amended by said certificate filed on or about the 7th day of October, 1910 shall read as follows:-

FOURTH: The total authorized capital stock of the corporation is Five Million Dollars (\$5,000,000) divided into fifty thousand (50,000) shares of the par value of One Hundred Dollars (\$100) each. Of such total authorized capital stock, twenty thousand (20,000) shares amounting to Two Million Dollars (\$2,000,000) shall be preferred stock, and thirty thousand (30,000) shares amounting to Three Million Dollars (\$3,000,000) shall be common stock.

The holders of the preferred stock shall be entitled to receive when and as declared from the surplus or net profits of the corporation dividends at the rate of five percent per annum yearly, half-yearly or

[ENCLOSURE]

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quarterly as the Board of Directors may from time to time fix and determine. The dividends on the preferred stock shall be cumulative from the date of original issuance thereof. No dividends shall be paid on or set apart for any common stock at any time unless and until the holders of the preferred stock shall have received full dividends thereon at the rate of five percent per annum for all previous dividend periods or payment thereof provided for by funds set apart for such purpose.

After full cumulative dividends at the rate of five percent per annum on the preferred stock for all previous dividend periods shall have been declared and paid or payment provided for by funds set apart for the purpose, the holders of the common stock shall be entitled to receive when and as declared out of the remaining surplus or net profits, dividends at the rate of five percent per annum payable yearly, half-yearly or quarterly as the Board of Directors may from time to time fix and determine.

After full dividends as aforesaid on the common stock for all previous dividend periods from and after November 30, 1917, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 30, 1917, and on the preferred stock from the date of the original issuance thereof, shall have been declared and paid or payment provided for by funds set apart for that purpose, the remainder of any surplus or net profits shall be applicable to the payment of further dividends equally per share upon both preferred and common stocks which said further dividends shall not be at a rate in excess of three percent per annum on the preferred stock calculated cumulatively from the date of the original issuance thereof.

After dividends as hereinbefore provided for on the preferred and common stock shall have been declared and paid or payment provided for by funds set apart for the purpose to an amount not to exceed the rate of eight percent per annum, as aforesaid, the remainder of any surplus or net profits shall then be applicable to the payment of further dividends upon the common stock.

In determining the distribution of dividends between the preferred and common stock, there shall be excluded from calculation all dividends paid or payable upon the common stock in excess of the aggregate dividends at the rate of eight percent per annum to which said stock may be entitled as hereinbefore provided.

The preferred stock shall be subject to redemption, in whole or in part, at the option of the Corporation (to be determined by the Board of Directors, out of any surplus or net profits, at any time after three years from the original issuance thereof at one hundred and five percent (105%) of the par value thereof, together with all dividends declared thereon and remaining unpaid, provided, however, that no such preferred stock shall be so redeemed until cumulative dividends at the rate of five percent per annum up to the date of such redemption on all outstanding preferred stock shall have been paid or funds set apart for this purpose.

In case the Board of Directors of the corporation shall determine to redeem the whole of the preferred stock, they shall cause to be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least thirty days before the date of such proposed redemption, a notice stating the price and place at which and the time when

[ENCLOSURE]

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the redemption in such notice, the corporation shall, upon presentation, duly endorsed for transfer and surrender, of the certificate of said preferred stock, pay to the holder thereof the price fixed herein as the price of redemption, and the right to dividends upon any preferred stock shall cease on the date fixed by such notice for redemption.

In case the Board of Directors of the corporation shall determine to redeem a part of the preferred stock, in every such case the shares of such preferred stock represented by each certificate therefor as such certificates shall be outstanding at the beginning of business on the day fixed by the directors for such redemption, shall be redeemed proportionately. Notice of such partial redemption, stating the proportion to be redeemed, the price and place at which, and the time when such preferred stock is to be redeemed, shall be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least thirty days before the date of such proposed partial redemption. On and after the date fixed in the notice for such partial redemption, the corporation, upon presentation duly endorsed for transfer and surrender, or presentation for stamping (as the corporation may require) of any certificate for such preferred stock, shall pay to the holder thereof for each share redeemed the price fixed herein as the price of redemption, and the right of any holder of such preferred stock to dividends upon the shares represented by any certificate shall cease, in the proportion fixed in the notice as the proportion to be redeemed, on the day fixed for such redemption. In every case of such partial redemption, each certificate for the stock so redeemed shall be surrendered, and a new certificate issued for the number of shares represented by such certificate and remaining unredeemed, or the old certificate may be properly stamped and returned to the holder. In case of the surrender of the certificates, the corporation may issue scrip representing fractional portions of the unredeemed shares. Said scrip shall not entitle the holder thereof to receive dividends thereon while the same is outstanding; but such scrip may at any time be exchanged for certificates of a stock when presented in amounts representing an even share or shares of stock, and upon such exchange, the holder of such scrip upon surrendering the same shall be entitled to be paid any dividends theretofore declared and remaining unpaid upon the stock represented thereby.

No preferred stock represented by a certificate bearing date prior to the date fixed for the redemption of the whole or a part of the preferred stock shall, after the date so fixed for such redemption, be transferred upon the books of the corporation unless and until such certificate shall have been surrendered or stamped by the corporation as the case may require.

In the event of the liquidation, dissolution or winding up (whether voluntary or involuntary) of the corporation, the assets and funds of the corporation, after payment of the corporation's indebtedness, shall be applied in the order mentioned as follows:-

First, to the payment to the holders of the preferred stock of the full amount of the par value of their preferred shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from the date of original issuance thereof; then to the payment to the holders of the common stock of the full amount of the par value of their common shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from and after November 30, 1917, or from and after the date of original issuance

[ENCLOSURE]

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thereof in the case of common stock issued subsequent to November 30, 1917; and lastly, the remaining assets and funds shall be distributed among and paid to the holders of the preferred and common stock pro rata share and share alike, and without preference or priority of one class of shares over the other.

Each stockholder shall be entitled to one vote for each share of stock held by him, whether preferred or common stock.

AND BE IT FURTHER RESOLVED that a meeting of the stockholders to take action upon the foregoing resolution be called forthwith to be held at the principal office of the Company at the corner of Valley Road and Lakeside Avenue, West Orange, New Jersey, on Thursday, November 22nd, 1917, at ten o'clock A. M.

RESOLVED that the offer of the holders of the Company's First Mortgage five percent Gold Bonds now outstanding to sell their bonds to the Company at par plus accrued interest be and the same is hereby accepted, subject to ratification by the stockholders.

IN WITNESS WHEREOF, I have hereunto signed my name as Secretary and affixed the seal of the Company, this nineteenth day of November, Nineteen Hundred Seventeen.

Arthur Mudd
Secretary

This agreement entered into
this — day of —
1914 by & between the
S. E. Co. & the Storage
Battery Co of Orange

Whereas, the S. B. Co is
desirous of extending
continuously to obtain
its supply of Lithium
hydroxide from the
S. E. Co for a further
period of 5 years, &
Whereas, the Standard
Co is possessor of a
Lithium mineral mine

2
affording it a supply
of ore, and ^{also} of a factory
capable of producing
about 16000 to 18000
lbs of Dry Lithium
hydroxide per month
all of which is bought
by the Battery Co, and
Whereas, in the course
of business, the requirements
of the Battery Co may
at any time increase
up to a ^{quantity} of
40000 lbs monthly, and
Whereas the S. Co
is unwilling to erect
additional Chemical

3

works to increase its
capacity to this quantity
amount which in
certain contingencies
might not be taken
by the storage BCs

It is ^{therefore} ~~argued~~ ^{agreed} that the
Batteries will
as an ~~understanding~~
to ~~the~~ pay for the
extra chemical
appropr. This necessary
to ~~increase~~ ^{interest the capacity} 40000
lb monthly to the
extent of \$110 000,
which is the estimated

therof, ^{the} ~~cost~~ ^{* said element}
as per schedule
appended made by
the Standard Co and
^{attached}

4 It should not cost more
than the estimate
the \$100,000 itself shall
pay for the ~~extra~~ ^{in any event}
the ~~storage~~ ^{the 513 Co. shall be made the necessary}
by 513 Co ^{for said element of interest} shall be limited
to \$110,000 & this
sum is to be paid in
monthly installments
covering a period of
12 months
after which the
expiration of the 5 yr
period the property paid
for by the BCs shall

5
become the property
of the ~~EST~~ Standard
Co -

~~The Contract shall~~
~~be as follows:~~

¶ The price which the
E Co shall pay to
the S Co shall be ^{the cost}
sixty five cents per pound
of dry lithium hydroxide
with impurities
not exceeding $\frac{1}{2}\%$ of
which the following
are limits ^{this is to be understood}
So the cost price the
S Co may add 25
cents per lb as its profit x

6
The aforesaid base price is based on
~~whereas~~ the present
conditions as to labor costs
& supplies -

¶ If at any time during
the Contract period
the cost of labor in its
mines or factory increases
or ~~decreases~~ so as to
cause a increase or
~~decrease~~ in cost of
the lithium hydroxide, ~~then~~
A public accountants
^{independently selected}
shall determine from the
S Co books such increase
or decrease of cost,
& this increased cost
shall be added to the

base price of
65 cents —
the standard
adding its 25 c per
lb. freight,

Should the Edison Co
fail to pay for its
monthly requirements
within 60 days after
they are due ^{the payment} ^{of} ^{the} ^{amount of}
a sum of \$110,000 ~~or less~~
~~and under \$100,000~~ or less
shall all be payable
at once —

8

It is understood &
agreed that while
the ^{present} requirements ~~of~~
of the B. & O.
be about 18,000 to 20,000 ^{lb.}
& may ~~be~~ reach 40,000 ^{lb.}
If the exigencies of business
renders it necessary, the
B. & O. may increase its
requirements to any ^{quantity}
~~amount~~ less than
18,000 to 20,000 ^{lb.}
monthly, but the payments
on the ^{amount of} \$110,000 shall
continue until paid

Lithia
Standard

MEMORANDUM OF AGREEMENT made this day of November, 1918, by and between EDISON STORAGE BATTERY COMPANY, a New Jersey corporation of West Orange, New Jersey, hereinafter called the Edison Company, party of the first part, and STANDARD ESSENCE COMPANY, a New Jersey corporation, of Maywood, New Jersey, hereinafter called the Standard Company, party of the second part, WITNESSETH:

WHEREAS, the Edison Company is desirous of continuing to obtain its supply of Lithium Hydroxide from the Standard Company for a further period of five years, and,

WHEREAS, the Standard Company is possessed of a Lithium mineral mine affording it a supply of ore, and also of a factory capable of producing about 16,000 to 18,000 pounds of dry Lithium Hydroxide per month, all of which is bought by the Edison Company, and

WHEREAS, in the course of business, the requirements of the Edison Company for Lithium Hydroxide may increase up to a quantity of 40,000 pounds monthly, and

WHEREAS, the Standard Company is unwilling to erect additional Chemical Works to increase its capacity to this quantity, which in certain contingencies might not be taken by the Edison Company,

IT IS THEREFORE AGREED, that the Edison Company will pay for the extra chemical apparatus necessary to increase the capacity to 40,000 pounds, monthly, to the extent of \$110,000, which is the estimated cost thereof, as per schedule made by the Standard Company and hereto attached.

Should said chemical apparatus cost more than the estimated cost, the Standard Company itself shall pay for the excess. In any event, the money payment by the Edison

Company for said chemical apparatus shall be limited to \$110,000, and this sum is to be paid in monthly installments covering a period of months. After the expiration of the five year period, the property paid for by the Edison Company shall become the property of the Standard Company.

The price which the Edison Company shall pay to the Standard Company shall be the cost price of sixty-five cents per pound of dry Lithium Hydroxide %, with impurities not exceeding %, of which the following are limits. This is to be called the base price.

To the cost, or base price, the Standard Company may add 25¢ per pound as its profit. The aforesaid base price is based on the present conditions as to labor, costs and supplies.

If at any time during the contract period the cost of labor in its mines or factory increase so as to cause an increase in cost of the Lithium Hydroxide, a Public Accountant, mutually agreed upon, shall determine from the Standard Company's books such increase of cost, and this increased cost shall be added to the base price of sixty-five cents, the Standard Company adding its 25¢ per pound thereto.

Should the Edison Company fail to pay for its monthly requirements within 60 days after they are due, the remaining payment due on said sum of \$110,000, or less, shall all be payable at once.

It is understood and agreed that while the present requirements of the Edison Company are about 18,000 to 20,000 pounds per month, and may reach 40,000 pounds, if the exigencies of business render it necessary the Standard Company

may reduce its requirements to any quantity less than 18,000 to 20,000 pounds monthly, but the payments on account of the \$110,000 shall continue until paid.

Edison Storage Battery Co.

CHARLES EDISON
CHAIRMAN
OF THE BOARD

TRADE MARK
Thomas A Edison

ORANGE, N.J., U.S.A.

June 11, 1919.

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON	PRESIDENT
B. M. HAMBERT	VICE-PRESIDENT AND FINANCIAL EXECUTIVE
ROBERT A. BACHMAN	VICE-PRESIDENT AND GENERAL MANAGER
H. G. THOMPSON	VICE-PRESIDENT AND GENERAL SALES MANAGER
H. F. MILLER	TREASURER
ARTHUR MUDD	SECRETARY

Reference:
IT:T:CR-2
BJD 11 756 559

Commissioner of Internal Revenue,
Treasury Department,
Washington, D. C.

Dear Sir: Attention of Mr. P. S. Talbert, Acting Deputy Commr.

From the enclosed exhibits you will see that we have taken the time to reply rather fully to your letter of April 22, in order to give you all the information you desire.

As requested, the following statements are enclosed, the same being in further support of the Income and Excess Profits Tax Returns of Edison Storage Battery Company and The Edison Storage Battery Supply Company, for the fiscal year ended February 28, 1917 (not 1916).

- Exhibit 1: Consolidated Balance Sheets as at February 29, 1916 and February 28, 1917.
- 2: Consolidated Profit and Loss Statement for Fiscal Year ended February 28, 1917.
- 3: Analysis of Patent Account for past 19 years.
- 4: Letter signed by MR. THOS. A. EDISON, dated May 18, 1919, addressed to Mr. Talbert. Mr. Edison, the inventor of the Edison Sound Recording, and the world's foremost scientist, explains for your benefit the basis used in valuing the Company's patents.

After examining Exhibits 3 and 4 you may feel that our books show a rather low valuation of our patents. This, while undoubtedly being the case, is in harmony with our policy of always stating the facts of the business as conservatively as possible.

Commissioner of Internal Revenue:

-2-

June 11, 1919.

You will note from Mr. Eison's letter that the Company was in a more or less experimental stage up to 1910. As a matter of fact, the books were not balanced until February 28, 1910. Therefore, we are not enclosing yearly balance sheets and profit and loss accounts, beginning with the date of organization, as you requested, the other exhibits attached probably giving you all the information you desire.

ADJUSTMENT OF INVESTED CAPITAL:

Item 5, Schedule B, \$16,820.56, is the difference between the actual bad debts written off and the amount of reserve set up to take care of bad debts, and hence is an item disallowed as a deduction from income. Consequently it was added to Invested Capital, Feb. 28, 1917.

Item 6, Schedule B, \$45,911.85, represents the amount written off by us on account of our old obsolete factory property in Glen Ridge N. J. Being an item disallowed as a deduction from income we were obliged to add it to our Invested Capital, Feb. 28, 1917.

BAD DEBTS WRITTEN OFF:

With respect to Item 5 A "Loss - Bad Debts" \$66,145.57. This amount was not written off until every effort had been made by our Credit Department to secure payment, which procedure was followed in each case. Some of the concerns went through bankruptcy proceedings.

INCOME AND PROFIT TAX RETURN FOR YEAR ENDING 2-28-18:

Your reference to Article 952 of Part II, Preliminary Regulations 46, is appreciated. On March 15, 1919, we filed Form #1051-1 with our Collector in Newark, N. J., and paid the estimated tax then due thereon, and on June 11, 1919, we shall file final return on Form #1120, thus fully complying with the Regulations to which you so kindly directed our attention. In this, as well as in all other tax matters, we are personally guided by the Collector of Internal Revenue at Newark, N. J., with whom our returns are discussed at length before filing.

If you require further information please address your letter to the writer.

Very truly yours,

RHA

Assistant Financial Executive.

EDISON STORAGE BATTERY COMPANY
Orange, New Jersey.

May 19, 1919.

EXHIBIT No. 1 A

Edison Storage Battery Co. and The Edison Storage Battery Supply Co.
Consolidated Balance Sheet as at Feb. 28, 1917.

ASSETS	Total	Elim. of Inter-co. items	Ed. Stor. Bat. Co.	Ed. Stor. Bat. Sup. Co.
Real Estate	\$72,475.48		72,475.48	
Buildings	787,151.51		787,151.51	
Equipment	<u>2,041,958.43</u>		<u>2,036,520.46</u>	<u>5,417.97</u>
	2,901,585.42		2,895,145.45	5,417.97
Reserve for Depreciation	<u>585,145.90</u>		<u>585,177.54</u>	<u>671.36</u>
	2,315,414.52		2,310,567.91	4,746.61
Cash	245,261.01		227,088.81	18,172.20
Accounts Receivable	479,575.47		459,868.42	19,807.05
Notes Receivable	16,614.10		16,464.10	150.00
Due from Edison Industries	32,233.46	78,454.80	110,588.26	
Securities		900.00	900.00	
Inventories:				
Raw Mat'l & Supplies	350,555.48		350,555.48	
Work in Process	827,078.44		827,078.44	
Finished Stock	430,985.64		378,522.73	52,464.11
Deferred Assets	17,645.58		15,180.33	2,465.25
Other Assets (Patents)	<u>1,868,302.40</u>		<u>1,868,302.40</u>	
	\$6,585,867.30	79,354.80	6,565,416.88	97,805.22

EDISON STORAGE BATTERY COMPANY
Orange, New Jersey.

May 19, 1919.

EXHIBIT No. 1 B

Edison Storage Battery Co. and The Edison Storage Battery Supply Co.
Consolidated Balance Sheet as at Feb. 28, 1917.

<u>LIABILITIES</u>	<u>Total</u>	<u>Elim. of Inter-Co. Items</u>	<u>Ed. Stor. Bat. Co.</u>	<u>Ed. Stor. Bat. Sup. Co.</u>
Bonded Debt	2,000,000.00		2,000,000.00	
Accounts Payable	266,094.34		265,009.81	3,085.53
Notes Payable Bank Loans	510,000.00		510,000.00	
Due to Edison Industries		78,454.80		78,454.80
Deposits on Contracts	71,688.95		58,688.95	3,000.00
Deferred Liabilities	80,297.86		79,599.90	697.96
Reserve for Losses on Notes & Accts. Rec.	49,734.29		47,346.41	2,387.88
Reserve for Contingencies:				
39,541.57			39,185.99	355.58
Capital Stock Common	2,998,300.00	900.00	2,998,300.00	1,000.00
Surplus	568,210.29		569,386.82	6,823.47
	<u>\$6,883,867.30</u>	<u>79,354.00</u>	<u>6,565,416.88</u>	<u>97,805.22</u>

EDISON STORAGE BATTERY COMPANY
Orange, New Jersey.

May 19, 1919.

EXHIBIT No. 1 C

Edison Storage Battery Co. and The Edison Storage Battery Supply Co.
Consolidated Balance Sheet as at Feb. 29, 1916.

<u>ASSETS</u>	<u>Total</u>	<u>Elim. of Inter-co. Items</u>	<u>Ed. Stor. Bat. Co.</u>	<u>Ed. Stor. Bat. Sup. Co.</u>
Real Estate	43,639.11		43,639.11	
Buildings	65,328.87		65,328.87	
Machinery & Equipment	1,134,937.85		1,132,514.17	1,423.69
Reserve for Depreciation	1,244,108.94		1,242,682.15	1,423.69
	370,221.14		370,321.14	
	873,184.70		871,761.01	1,423.69
Cash	61,084.41		77,036.37	4,048.04
Accounts Receivable	322,391.57		308,411.62	13,979.95
Notes Receivable	6,300.00		6,300.00	
Due from Edison Industries	624,879.14	62,425.49	707,004.63	
Securities	14,156.52	900.00	15,056.52	
Inventories:				
Raw Materials & Supplies	211,576.95		211,576.95	
Work in Process	512,365.27		512,365.27	
Finished Stock	310,656.51		274,790.98	35,875.53
<i>Charges</i> Deferred Assets	32,034.47		31,220.73	113.74
Other Assets (Patents)	2,025,894.75		2,025,894.75	
	5,014,234.29	63,325.49	5,042,118.83	55,440.95

EDISON STORAGE BATTERY COMPANY
ORANGE, NEW JERSEY.

May 19, 1919.

Exhibit No. 1 D

Edison Storage Battery Co. and The Edison Storage Battery Supply Co.
Consolidated Balance Sheet as at Feb. 29, 1916.

<u>LIABILITIES</u>	<u>Total</u>	<u>Elim. of Inter-co. items</u>	<u>Ed. Stor. Bat. Co.</u>	<u>Ed. Stor. Bat. Sup. Co.</u>
Bonded Debt	\$ 500,000.00		500,000.00	
Accounts Payable	156,137.04		156,137.04	
Notes Payable, Edison Industries)	47,000.00		47,000.00	
Due to Edison Industries	825,559.73	82,425.49	825,559.73	82,425.49
Deposits on Contracts	59,670.02		59,670.02	
Deferred Liabilities	55,789.58		55,789.58	
Reserve for Losses on Notes & Accts. Receivable	16,820.56		16,820.56	
Reserve for Contingencies	11,859.74		11,859.74	
Capital Stock Common	2,998,300.00	900.00	2,998,200.00	1,000.00
Surplus	342,997.62		370,082.16	27,984.54
	<u>\$5,014,254.29</u>	<u>93,325.49</u>	<u>5,042,118.83</u>	<u>55,440.95</u>

EXHIBIT No. 2

May 19, 1919.

Edison Storage Battery Co. and The Edison Storage Battery Supply Co.
Consolidated Profit & Loss Statement, Feb. 28, 1917.

	Ed. Stor. Bat. Sup. Co.	Ed. Stor. Bat. Co.	Total	
Gross Sales	95,535.17	3,599,978.66	3,695,513.83	
Cost of Goods Sold	<u>53,682.72</u> 41,852.45	<u>2,200,321.08</u> 1,399,657.58	<u>2,254,003.80</u> 1,441,510.03	
Rentals		72,317.69	72,317.69	
Interest		1,398.67	1,398.67	
From other Sources		<u>14.39</u>	<u>14.39</u>	
	<u>41,852.45</u>	<u>1,473,388.33</u>		1,515,240.78
Ordinary and necessary expenses	29,541.94	357,331.29	386,873.23	
Comp. of Officers		28,947.29	28,947.29	
Rep. to equipment		86,865.69	86,865.69	
Interest		81,695.55	81,695.55	
Taxes	389.57	11,639.39	12,028.96	
Rentals		150,650.19	150,650.19	
Bad debts written off	2,060.66	66,143.57	68,204.23	
Loss by fire		1,170.98	1,170.98	
Exhaustion	<u>.671.36</u> 82,563.53	<u>364,201.10</u> 1,148,645.05	<u>364,872.46</u>	1,161,306.58
Am per Form #1031, Line #8	9,188.92	324,743.28		333,932.20

EXHIBIT No. 3

PATENTS

<u>Date</u>	<u>Explanation</u>	<u>Dr. to gen. acct</u>	<u>Cr. to dep. acct</u>	<u>Balance as per bal. sht</u>
Jul 17 '01	At this date Edison Storage Battery Co. purchased from Mr. Edison his invention and the patents of a storage battery of an entirely new type, upon which he had been experimenting for a great many years in an exhaustive manner and at very great expense, for	\$1,000,000.00		
Feb 28 '10	The patents taken out by Mr. Edison were assigned to Edison Storage Battery Co. in accordance with the agreement under which they purchased his invention, and it was found desirable to continue his experiments which resulted in important improvements which greatly increased the life and greatly improved the construction of the battery from mechanical and electrical standpoints. During this time it was also necessary to place the battery in the hands of the public in order to determine how it would stand up in actual practice, these commercial operations being carried on by Edison Storage Battery Co., and the net loss or expense thereof up to Feb. 28, 1910 was charged to Experimental (or patent) Account, as was necessary since the battery at that time was still in an experimental stage, and amounted to			

\$1,678,974.26

2,678,974.26

EXHIBIT No. 3

PATENTS

<u>Date</u>	<u>Explanation</u>	Dr. <u>to vat. acct</u>	Cr. <u>to dep. acct</u>	Balance <u>as per bal. sht</u>
Mar '10 to Feb '16	Forward	2,678,974.26		
	Cash expenditures	4,104.59		
	Depreciation	<u>2,683,078.85</u>	<u>657,184.10</u> 657,184.10	2,025,894.75
Mar '16 to Feb '17	Cash expenditures	246.72		
	Depreciation	<u>2,683,325.57</u>	<u>157,839.07</u> 815,025.17	1,868,302.40

Edison Storage Battery Co.

TRADE MARK
Thomas Edison

ORANGE, N.J. U.S.A.

THOMAS EDISON
DIRECTOR
OF THE BOARD

OFFICE OF
VICE-PRESIDENT AND FINANCIAL EXECUTIVE

THOMAS A. EDISON PRESIDENT
S. S. HANBURY VICE-PRESIDENT
ROBERT A. BARNETT TREASURER
H. B. THOMPSON SECRETARY
H. F. MILLER ASSISTANT SECRETARY
ARTHUR HUGO ASSISTANT SECRETARY

May 16, 1919.

Mr. T. Talbert,
Acting Deputy Commissioner of Internal Revenue,
Washington, D. C.

Dear Sir:

In 1901 the Edison Storage Battery Company purchased from me my invention and the patents of a storage battery of an entirely new type, upon which I had been experimenting for a great many years in an exhaustive manner and at very great expense, for \$1,000,000.00

This invention was of a basic and pioneer character, and the Edison Storage Battery Company has a complete monopoly in the manufacture of batteries in which an alkaline electrolyte is used in combination with electrodes employing compounds of iron and nickel respectively instead of an acid electrolyte as used in the well known forms of lead batteries.

The patents taken out were by me assigned to the Edison Storage Battery Company in accordance with the agreement under which they purchased my invention, and it was found desirable to continue my experiments which resulted in important improvements which greatly increased the life and greatly improved the construction of the battery from mechanical and electrical standpoints. During this time it was also necessary to place the battery in the hands of the public in order to determine how it would stand up in actual practice, these commercial operations being carried on by the Edison Storage Battery Company, and the net loss or expense thereof up to February 28, 1910 and amounting to \$1,678,974.26 was charged to their

Experimental (or Patent) Account, as was necessary since the battery at that time was still in an experimental stage.

The proof of the value of these patents to the Company is apparent when it is considered that the total sales from 1901 to the end of the fiscal year February 28, 1910 was but \$619,000. as compared with sales made during the fiscal year ended February 28, 1919 of six million dollars. In the last eight years the Edison Storage Battery Company has sold nearly twenty-two and three quarter million dollars worth of storage batteries.

The Company has today invested in land and buildings over eight hundred thousand dollars; in machinery, tools and equipment over one and a half million dollars; and in inventories of raw materials, work in process and finished stock over two and three quarter million dollars. Its accounts receivable are close to the million dollar mark.

The splendid growth of the business is attributable to the superior quality of its product, made possible by the experimental and research work performed during the early part of the Corporation's existence, and the patents which resulted therefrom.

Yours very truly,

(Signed) THOS. A. EDISON

President.

Preliminary Draft
Edison Storage Battery Co.



ORANGE, N.J., U.S.A.

June 28, 1923

IN REPLYING
ADDRESS THE COMPANY
AND REFER TO

ok 7/23
International Equipment Co.,
Transportation Bldg.,
Montreal, Quebec, Canada.

Gentlemen:

It is mutually agreed to supplement and amend our contract with you of November 9, 1922 with reference to the sales of Edison storage batteries in the Dominion of Canada and Newfoundland, as follows:

(1) To avoid any possible misunderstanding, it is to be understood that our agreement with you covers only cells of the types specifically mentioned in paragraph 14 of said agreement, and that it is not to cover sales of a new type of storage battery on which Mr. Edison is now working and which is especially designed or to be designed for starting internal combustion engines and which is referred to by Mr. Edison as the "Ford Starter Battery," which said new type of storage battery may or may not be manufactured and marketed by us.

allowance
(2) On all sales to you on orders placed after the date hereof for A, B, G and L type cells, we will allow you an additional ~~discount~~ of five (5%) per cent. making the discount on cells of said types as follows:

land allowance
A & B type cells.....30% and 5%
G --- " "25% and 5%
L --- " "25% and 5%

(3) Paragraph 9 of the agreement of November 9, 1922 is hereby cancelled, and you agree to sell all batteries hereafter purchased from us with the understanding that no guaranty or replacement agreement made by us applies to them, except that we will replace free of charge any cell which when returned to us f.o.b. Orange, N.J. within one year from its date of shipment from our factory shall, upon our inspection, prove to

To cover cost of maintenance and for journey to delivery,

International Equipment Co. -2-

June 28, 1923

be defective in workmanship or material. You will further agree that no guaranty or replacement agreement on Edison cells which you may make or enter into upon your own responsibility and at your own risk and expense shall be more liberal than the terms of the standard guaranty or replacement agreement then being offered by us generally to purchasers in the United States.

(4) It is further agreed that said agreement of November 9, 1922 as hereby supplemented and amended shall be binding upon both parties for a period of four years from November 9, 1922 and thereafter until cancelled. It may after said 'four years' period be cancelled by either party upon 60 days' notice in writing to the other. This paragraph shall supersede paragraph 27 of said agreement of November 9, 1922.

(5) Except as herein supplemented and amended, said agreement of November 9, 1922 shall remain in full force and effect.

Very truly yours,

EDISON STORAGE BATTERY COMPANY

By _____
Chairman of the Board
of Directors.

Accepted and agreed to:

INTERNATIONAL EQUIPMENT COMPANY

By _____

State of New Jersey

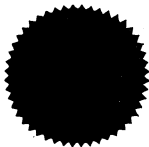


Department of State

I, Thomas F. Martin, Secretary of State, of the State of New Jersey, do hereby Certify that the foregoing is a true copy of CERTIFICATE OF AMENDMENT of CERTIFICATE OF INCORPORATION
of EDISON STORAGE BATTERY COMPANY,

_____ and the endorsements thereon
as the same is taken from and compared with the original filed
in my office on the Third day of July A.D.
1924, and now remaining on file and of record therein.

In Testimony Whereof, I have hereunto
set my hand and affixed my Official
Seal at Trenton, this Third
day of July A.D. 1924.



Thomas F. Martin
Secretary of State.

CERTIFIED COPY

OF

Certificate of Amendment of

Certificate of Incorporation

of

EDISON STORAGE BATTERY COMPANY.

1924-07-02.

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION
OF EDISON STORAGE BATTERY COMPANY.

The location of the principal office in this State is at the corner of Valley Road and Lakeside Avenue in the Town of West Orange, County of Essex and State of New Jersey.

The name of the agent therein and in charge thereof upon whom process against this corporation may be served is Harry F. Miller.

RESOLUTION OF BOARD OF DIRECTORS

"The Board of Directors of Edison Storage Battery Company, a corporation of New Jersey, on this 26th day of June, 1924, do hereby resolve and declare that it is advisable that Article Fourth of the Certificate of Incorporation of this Company as heretofore amended be further amended to read as follows:-

"FOURTH: The total authorized capital stock of the corporation is Five Million Dollars (\$5,000,000) divided into fifty thousand (50,000) shares of the par value of One Hundred Dollars (\$100) each. Of such total authorized capital stock, twenty thousand (20,000) shares amounting to Two Million Dollars (\$2,000,000) shall be preferred stock, and thirty thousand (30,000) shares amounting to Three Million Dollars (\$3,000,000) shall be common stock.

"The holders of the preferred stock shall be entitled to receive when and as declared from the surplus or net profits of the corporation dividends at the rate of five percent per annum yearly, half-yearly or quarterly, as the Board of Directors may from time to time fix and determine. The dividends on the preferred stock shall be cumulative from the date of original issuance thereof. No dividends shall be paid on or set apart for any common stock at any time unless and until the holders of the preferred stock shall have received full dividends thereon at the rate of five percent per annum for all previous dividend periods or payment thereof provided for by funds set apart for such purpose.

"After full cumulative dividends at the rate of five percent per annum on the preferred stock for all previous dividend periods shall have been declared and paid or payment provided for by funds set apart for the purpose, the holders of the common stock shall be entitled to receive when and as declared out of the remaining surplus or net profits, dividends at the rate of five percent per annum payable yearly, half-yearly or quarterly as the Board of Directors may from time to time fix and determine.

"After full dividends as aforesaid on the common stock for all previous dividend periods from and after November 30, 1917, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 30, 1917, and on the preferred stock from the date of the original issuance thereof, shall have been declared and paid or payment provided for by funds set apart for that purpose, the remainder of any surplus or net profits shall be applicable to the payment of further dividends equally per share upon both preferred and common stock, which said further dividends shall not be at a rate in excess of three percent per annum on the preferred stock calculated cumulatively from the date of the original issuance thereof. After dividends as hereinbefore provided for on the preferred and common stock shall have been declared and paid

OF THE BOARD OF DIRECTORS OF THE CORPORATION

CONSTITUTION OF THE CORPORATION OF THE BOARD OF DIRECTORS

-2-

or payment provided for by funds set apart for the purpose to an amount not to exceed the rate of eight percent per annum, and as aforesaid, the remainder of any surplus or net profits shall then be applicable to the payment of further dividends upon the common stock.

'In determining the distribution of dividends between the preferred and common stock, there shall be excluded from calculation all dividends paid or payable upon the common stock in excess of the aggregate dividends at the rate of eight percent per annum to which said stock may be entitled as hereinbefore provided.

'The preferred stock shall be subject to redemption, in whole or in part, at the option of the corporation (to be determined by the Board of Directors), at any time after three years from the original issuance thereof at one hundred and five percent (105%) of the par value thereof, together with all dividends declared thereon and remaining unpaid, provided, however, that no such preferred stock shall be so redeemed until full cumulative dividends at the rate of five percent per annum up to the date of such redemption on all outstanding preferred stock shall have been paid or funds set apart for this purpose.

'In case the Board of Directors of the corporation shall determine to redeem the whole or the preferred stock, they shall cause to be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least five days before the date of such proposed redemption, a notice stating the price and place at which and the time when said preferred stock is to be redeemed. On and after the date fixed for the redemption in such notice, the corporation shall, upon presentation, duly endorsed for transfer and surrender, of the certificate of said preferred stock, pay to the holder thereof the price fixed herein as the price of redemption, and the right to dividends upon any preferred stock shall cease on the date fixed by such notice for redemption.

'In case the Board of Directors of the corporation shall determine to redeem a part of the preferred stock, in every such case the shares of such preferred stock represented by each certificate therefor as such certificates shall be outstanding at the beginning of business on the day fixed by the directors for such redemption, shall be redeemed proportionately. Notice of such partial redemption, stating the proportion to be redeemed, the price and place at which, and the time when such preferred stock is to be redeemed, shall be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least five days before the date of such proposed partial redemption. On and after the date fixed in the notice for such partial redemption, the corporation, upon presentation duly endorsed for transfer and surrender, or presentation for stamping (as the corporation may require) of any certificate for such preferred stock, shall pay to the holder thereof for each share redeemed the price fixed herein as the price of redemption, and the right of any holder of such preferred stock to dividends upon the shares represented by any certificate shall cease in the proportion fixed in the notice as the proportion to be redeemed, on the day fixed for such redemption. In every case of such partial redemption, each certificate for the stock so redeemed shall be surrendered, and a new certificate issued for the number of shares represented by such certificate and remaining unredeemed, or the old certificate may be properly stamped and returned to the holder. In case of the surrender of the certificate, the corporation may issue scrip representing fractional portions of the unredeemed shares. Said scrip shall not entitle the holder thereof to receive dividends thereon while the same is outstanding, but such scrip may at any time be exchanged for certificates of stock when presented in amounts rep-

representing an even share or shares of stock, and upon such exchange, the holder of such scrip upon surrendering the same shall be entitled to be paid any dividends theretofore declared and remaining unpaid upon the stock represented thereby.

"No preferred stock represented by a certificate bearing date prior to the date fixed for the redemption of the whole or a part of the preferred stock shall, after the date so fixed for such redemption, be transferred upon the books of the corporation unless and until such certificate shall have been surrendered or stamped by the corporation as the case may require.

"In the event of the liquidation, dissolution or winding up (whether voluntary or involuntary) of the corporation, the assets and funds of the corporation, after payment of the corporation's indebtedness, shall be applied in the order mentioned as follows:—

"First, to the payment to the holders of the preferred stock of the full amount of the par value of their preferred shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from the date of original issuance thereof; then to the payment to the holders of the common stock of the full amount of the par value of their common shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from and after November 30, 1917, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 30, 1917; and lastly, the remaining assets and funds shall be distributed among and paid to the holders of the preferred and common stock pro rata share and share alike, and without preference or priority of one class of shares over the other.

"Each stockholder shall be entitled to one vote for each share of stock held by him, whether preferred or common stock."

and do hereby call a meeting of the stockholders to be held at the office of the Company, corner Valley Road and Lakeside Avenue, in the Town of West Orange, County of Essex and State of New Jersey, on the second day of July, 1924, at 1:30 p.m., to take action upon the above resolution."

Certificate of Change

Edison Storage Battery Company, a corporation of New Jersey,

doth hereby certify that it has amended Article Fourth of the Certificate of Incorporation of the Company as heretofore amended to read as follows:

"FOURTH: The total authorized capital stock of the corporation is Five Million Dollars (\$5,000,000) divided into fifty thousand (50,000) shares of the par value of One Hundred Dollars (\$100) each. Of such total authorized capital stock, twenty thousand (20,000) shares amounting to Two Million Dollars (\$2,000,000) shall be preferred stock, and thirty thousand (30,000) shares amounting to Three Million Dollars (\$3,000,000) shall be common stock.

"The holders of the preferred stock shall be entitled to receive when and as declared from the surplus or net profits of the corporation dividends at the rate of five percent per annum yearly, half-yearly or quarterly, as the Board of Directors

may from time to time fix and determine. The dividends on the preferred stock shall be cumulative from the date of original issuance thereof. No dividends shall be paid on or set apart for any common stock at any time unless and until the holders of the preferred stock shall have received full dividends thereon at the rate of five percent per annum for all previous dividend periods or payment thereof provided for by funds set apart for such purpose.

"After full cumulative dividends at the rate of five percent per annum on the preferred stock for all previous dividend periods shall have been declared and paid or payment provided for by funds set apart for the purpose, the holders of the common stock shall be entitled to receive when and as declared out of the remaining surplus or net profits, dividends at the rate of five percent per annum for all previous dividend periods payable yearly, half-yearly or quarterly as the Board of Directors may from time to time fix and determine.

"After full dividends as aforesaid on the common stock for all previous dividend periods from and after November 30, 1917, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 30, 1917, and on the preferred stock from the date of the original issuance thereof, shall have been declared and paid or payment provided for by funds set apart for that purpose, the remainder of any surplus or net profits shall be applicable to the payment of further dividends equally per share upon both preferred and common stock, which said further dividends shall not be at a rate in excess of three percent per annum on the preferred stock calculated cumulatively from the date of the original issuance thereof.

"After dividends as hereinbefore provided for on the preferred and common stock shall have been declared and paid or payment provided for by funds set apart for the purpose to an amount not to exceed the rate of eight percent per annum, as aforesaid, the remainder of any surplus or net profits shall then be applicable to the payment of further dividends upon the common stock.

"In determining the distribution of dividends between the preferred and common stock, there shall be excluded from calculation all dividends paid or payable upon the common stock in excess of the aggregate dividends at the rate of eight percent per annum to which said stock may be entitled as hereinbefore provided.

"The preferred stock shall be subject to redemption, in whole or in part, at the option of the corporation (to be determined by the Board of Directors), at any time after three years from the original issuance thereof at one hundred and five percent (105%) of the par value thereof, together with all dividends declared thereon and remaining unpaid, provided, however, that no such preferred stock shall be so redeemed until full cumulative dividends at the rate of five percent per annum up to the date of such redemption on all outstanding preferred stock shall have been paid or funds set apart for this purpose.

"In case the Board of Directors of the corporation shall determine to redeem the whole of the preferred stock, they shall cause to be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least five days before the date of such proposed redemption, a notice stating the price and place at which and the time when said preferred stock is to be redeemed. On and after the date fixed for the redemption in such notice, the corporation shall, upon presentation, duly endorsed for transfer and surrender, of the certificates of said preferred stock, pay to the holder thereof the amount of any dividends on said stock due and unpaid at the date of such redemption or payment.

the holder thereof the price fixed herein as the price of redemption, and the right to dividends upon any preferred stock shall cease, on the date fixed by such notice for redemption.

"In case the Board of Directors of the corporation shall determine to redeem a part of the preferred stock, in every such case the shares of such preferred stock represented by each certificate therefor as such certificates shall be outstanding at the beginning of business on the day fixed by the directors for such redemption, shall be redeemed proportionately. Notice of such partial redemption, stating the proportion to be redeemed, the price and place at which, and the time when such preferred stock is to be redeemed, shall be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least five days before the date of such proposed partial redemption. On and after the date fixed in the notice for such partial redemption, the corporation, upon presentation duly endorsed for transfer and surrender, or presentation for stamping (as the corporation may require) of any certificate for such preferred stock, shall pay to the holder thereof for such share redeemed the price fixed herein as the price of redemption, and the right of any holder of such preferred stock to dividends upon the shares represented by any certificate shall cease, in the proportion fixed in the notice as the proportion to be redeemed, on the day fixed for such redemption. In every case of such partial redemption, each certificate for the stock so redeemed shall be surrendered, and a new certificate issued for the number of shares represented by such certificate and remaining unredeemed, or the old certificate may be properly stamped and returned to the holder. In case of the surrender of the certificate, the corporation may issue scrip representing fractional portions of the unredeemed shares. Said scrip shall not entitle the holder thereof to receive dividends thereon while the same is outstanding; but such scrip may at any time be exchanged for certificates of stock when presented in amounts representing an even share or shares of stock, and upon such exchange, the holder of such scrip upon surrendering the same shall be entitled to be paid any dividends therefor declared and remaining unpaid upon the stock represented thereby.

"No preferred stock represented by a certificate bearing date prior to the date fixed for the redemption of the whole or a part of the preferred stock shall, after the date so fixed for such redemption, be transferred upon the books of the corporation unless and until such certificate shall have been surrendered or stamped by the corporation as the case may require.

"In the event of the liquidation, dissolution or winding up (whether voluntary or involuntary) of the corporation, the assets and funds of the corporation, after payment of the corporation's indebtedness, shall be applied in the order mentioned as follows:-

"First, to the payment to the holders of the preferred stock of the full amount of the par value of their preferred shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from the date of original issuance thereof; then to the payment to the holders of the common stock of the full amount of the par value of their common shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from and after November 30, 1917, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 30, 1917; and lastly, the remaining assets and funds shall be distributed among and paid to the holders of the preferred and common stock pro rata share and share alike, and without preference or priority of one class of shares over the other.

... touch on the other side of the bridge the observation
... the light is ... the ...

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Figure 1. The effect of the number of trials on the number of correct responses. The number of correct responses was significantly higher than the number of incorrect responses for all groups. The number of correct responses was significantly higher than the number of incorrect responses for all groups. The number of correct responses was significantly higher than the number of incorrect responses for all groups.

IN WITNESS WHEREOF, said Edison Storage Battery Company

has caused this certificate to be signed by its President and Secretary and its corporate seal to be hereto affixed the Second day of July, 1924.

EDISON STORAGE BATTERY COMPANY

Thos A Edison.
President.

J. H. Robinson
Secretary.

Secretary

On 12 June 1961, the U.S. Government and the Soviet Union signed the Partial Nuclear Test Ban Treaty. This treaty prohibited nuclear weapons tests in the atmosphere, in outer space, and under water. The treaty was signed in Moscow, and it was the first time that the United States and the Soviet Union had signed a treaty that was not related to the Cold War. The treaty was a significant step towards reducing the risk of nuclear war, and it was a symbol of the beginning of the end of the Cold War.

[illegible]

STOCKHOLDERS' ASSENT TO CHANGES

We, the subscribers, being at least two-thirds in interest of each class of the stockholders of Edison Storage Battery Company, having voting powers, having, at a meeting regularly called for the purpose, voted in favor of amending Article Fourth of the Certificate of Incorporation of the Company, as heretofore amended, to read as follows:

"FOURTH: The total authorized capital stock of the corporation is Five Million Dollars (\$5,000,000) divided into fifty thousand (50,000) shares of the par value of One Hundred Dollars (\$100) each. Of such total authorized capital stock, twenty thousand (20,000) shares amounting to Two Million Dollars (\$2,000,000) shall be preferred stock, and thirty thousand (30,000) shares amounting to Three Million Dollars (\$3,000,000) shall be common stock.

"The holders of the preferred stock shall be entitled to receive when and as declared from the surplus or net profits of the corporation dividends at the rate of five percent per annum, yearly, half-yearly or quarterly, as the Board of Directors may from time to time fix and determine. The dividends on the preferred stock shall be cumulative from the date of original issuance thereof. No dividends shall be paid on or set apart for any common stock at any time unless and until the holders of the preferred stock shall have received full dividends thereon at the rate of five percent per annum for all previous dividend periods or payment thereof provided for by funds set apart for such purpose.

"After full cumulative dividends at the rate of five percent per annum on the preferred stock for all previous dividend periods shall have been declared and paid or payment provided for by funds set apart for the purpose, the holders of the common stock shall be entitled to receive when and as declared out of the remaining surplus or net profits, dividends at the rate of five percent per annum payable yearly, half-yearly or quarterly as the Board of Directors may from time to time fix and determine.

"After full dividends as aforesaid on the common stock for all previous dividend periods from and after November 20, 1917, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 20, 1917, and on the preferred stock from the date of the original issuance thereof, shall have been declared and paid or payment provided for by funds set apart for that purpose, the remainder of any surplus or net profits shall be applicable to the payment of further dividends equally per share upon both preferred and common stock, which said further dividends shall not be at a rate in excess of three percent per annum on the preferred stock calculated cumulatively from the date of the original issuance thereof.

"After dividends as hereinbefore provided for on the preferred and common stock shall have been declared and paid or payment provided for by funds set apart for the purpose to an amount not to exceed the rate of eight percent per annum, as aforesaid, the remainder of any surplus or net profits shall then be applicable to the payment of further dividends upon the common stock.

"In determining the distribution of dividends between the preferred and common stock, there shall be excluded from calculation all dividends paid or payable upon the common stock in excess of the aggregate dividends at the rate of eight percent per annum to which said stock may be entitled as hereinbefore provided.

"The preferred stock shall be subject to redemption, in whole or in part, at the option of the corporation (to be determined by the Board of Directors), at any time after three years from the original issuance thereof at one hundred and five percent (105%) of the par value thereof, together with all dividends declared thereon and remaining unpaid, provided, however, that no such preferred stock shall be so redeemed until full cumulative dividends at the rate of five percent per annum up to the date of such redemption on all outstanding preferred stock shall have been paid or funds set apart for this purpose.

"In case the Board of Directors of the corporation shall determine to redeem the whole of the preferred stock, they shall cause to be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least five days before the date of such proposed redemption, a notice stating the price and place at which and the time when said preferred stock is to be redeemed. On and after the date fixed for the redemption in such notice, the corporation shall, upon presentation, duly endorsed for transfer and surrender, of the certificate of said preferred stock, pay to the holder thereof, the price fixed herein as the price of redemption, and the right to dividends upon any preferred stock shall cease on the date fixed by such notice for redemption.

"In case the Board of Directors of the corporation shall determine to redeem a part of the preferred stock, in every such case the shares of such preferred stock represented by each certificate therefor as such certificates shall be outstanding at the beginning of business on the day fixed by the directors for such redemption, shall be redeemed proportionately. Notice of such partial redemption, stating the proportion to be redeemed, the price and place at which, and the time when such preferred stock is to be redeemed, shall be mailed to each holder of the preferred stock at his address registered upon the books of the corporation, at least five days before the date of such proposed partial redemption. On and after the date fixed in the notice for such partial redemption, the corporation, upon presentation duly endorsed for transfer and surrender, or presentation for stamping (as the corporation may require), of any certificate for such preferred stock, shall pay to the holder thereof for each share redeemed, the price fixed herein as the price of redemption, and the right of any holder of any preferred stock to dividends upon the shares represented by any certificate shall cease, in the proportion fixed in the notice as the proportion to be redeemed on the day fixed for such redemption. In every case of such partial redemption, each certificate for the stock so redeemed shall be surrendered, and a new certificate issued for the number of shares represented by such certificate and remaining unredeemed, or the old certificate may be properly stamped and returned to the holder. In case of the surrender of the certificate, the corporation may issue scrip representing fractional portions of the unredeemed shares. Said scrip shall not entitle the holder

the following information was obtained from the investigation of the above mentioned source: The source stated that the above mentioned source was a member of the Communist Party of the United States of America (CPUSA) and was active in the CPUSA in the New York City area. The source stated that the above mentioned source was a member of the CPUSA and was active in the CPUSA in the New York City area. The source stated that the above mentioned source was a member of the CPUSA and was active in the CPUSA in the New York City area.

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Глава LXXXXXXXVII 260. <

thereof to receive dividends thereon while the same is outstanding; but such scrip may at any time be exchanged for certificates of stock when presented in amounts representing an even share or shares of stock, and upon such exchange, the holder of such scrip upon surrendering the same shall be entitled to be paid any dividends theretofore declared and remaining unpaid upon the stock represented thereby.

"The preferred stock represented by a certificate bearing date prior to the date fixed for the redemption of the whole or a part of the preferred stock shall, after the date so fixed for such redemption, be transferred upon the books of the corporation unless and until such certificate shall have been surrendered or stamped by the corporation as the case may require.

"In the event of the liquidation, dissolution or winding up (whether voluntary or involuntary) of the corporation, the assets and funds of the corporation, after payment of the corporation's indebtedness, shall be applied in the order mentioned as follows:-

"First, to the payment to the holders of the preferred stock of the full amount of the par value of their preferred shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from the date of original issuance thereof; then to the payment to the holders of the common stock of the full amount of the dividends on their common shares together with the amount of any deficit in dividends thereon calculated at the rate of five percent per annum from and after November 30, 1927, or from and after the date of original issuance thereof in the case of common stock issued subsequent to November 30, 1927; and lastly, the remaining assets and funds shall be distributed among and paid to the holders of the preferred common stock pro rata share and share alike, and without preference or priority of one class of shares over the other."

"Each stockholder shall be entitled to one vote for each share of stock held by him, whether preferred or common stock."

do now, pursuant to the Statute, hereby give our written assent to said change.

WITNESS our hands this second day of July, 1924

<u>Name</u>	<u>No. of Shares of</u> <u>Common Stock</u>	<u>No. of Shares of</u> <u>Preferred Stock</u>
<u>Thos. A. Gibson</u>	<u>75</u>	<u>0</u>
<u>Charles Gibson</u>	<u>1</u>	<u>0</u>
<u>H. M. Miller</u>	<u>1</u>	<u>0</u>
<u>Geneva</u>	<u>10</u>	<u>0</u>
<u>Frank Gibson</u>	<u>1</u>	<u>0</u>
<u>Wm. Macarowack</u>	<u>1</u>	<u>0</u>
<u>Thomas A. Gibson (Indorsed)</u>	<u>29,961</u>	<u>20,000</u>
<u>By H. M. Miller, Secy.</u>		

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[illegible]

STATE OF NEW JERSEY)
COUNTY OF ESSEX) ss.:

Be it Remembered that on this 2nd day of July, A.D. 1924, before me, the subscriber, a Notary Public of the State of New Jersey, personally appeared John W. Robinson, Secretary of Edison Storage Battery Company, the corporation mentioned in and which executed the foregoing certificate, who, being by me duly sworn on his oath, says he is such Secretary; that the seal affixed to said certificate is the corporate seal of said corporation, the same being well known to him; that Thomas A. Edison is President of said corporation and signed said certificate and affixed said seal thereto, and delivered said certificate by authority of the Board of Directors and with the assent of at least two-thirds in interest of each class of the stockholders of said corporation having voting powers, as and for his voluntary act and deed and the voluntary act and deed of the said corporation, in the presence of deponent who thereupon subscribed his name thereto as witness.

And he further says that the resolution of the Board of Directors contained in said certificate is truly and correctly set forth therein and that said resolution was adopted at a meeting of the said Board of Directors duly convened and held on the 26th day of June, 1924.

And he further says that the assent hereto appended is signed by at least two-thirds in interest of each class of stockholders of said corporation having voting powers, either in person or by their several duly constituted attorneys-in-fact thereunto duly authorized in writing.

Subscribed and sworn to before me the day and year aforesaid.

Edmund Williams

Notary Public of New Jersey

Report of the Committee on the Administration of the
of the Department of the Interior, Bureau of Land Management,
of 1912, and the report of the Commission on the
of the Department of the Interior, Bureau of Land Management,
of 1912, and the report of the Commission on the

CONVEX OF 1912 : no.
STYLE OF THE : no.

ENDORSED:

FILED AND RECORDED Jul 3 1924
THOMAS F. MARTIN,
Secretary of State."

CERTIFICATE OF AMENDMENT

of

CERTIFICATE OF INCORPORATION

of

EDISON STORAGE BATTERY COMPANY

FILED IN THE OFFICE OF THE
CLERK OF THE SUPREME COURT
AT THE CITY OF CHICAGO
JANUARY 10 1900

**Edison Storage Battery Company Records
Letterbook (1904-1916)**

This letterbook covers the period June 1904-November 1916. Many of the early letters are by Walter S. Mallory, vice president of ESBCo. Many of the later letters are by Harry F. Miller, who served as secretary and then as treasurer of the company. Other correspondents include Edison and George A. Meister. Included is correspondence regarding the financial health and administration of the company and relations with its British sales agents. Also included are letters delaying the payment of accounts, announcing board meetings, and arranging for the purchase of insurance and supplies. In addition, there is a series of letters prepared by Miller on Edison's behalf to investor Arthur I. Clymer of Ohio. A tag tied into the binding is marked "Edison S. B. Co. Duplicate Letter Book June 1904 to Nov 1916." The book contains 992 numbered pages and an index; it has been used to page 682. Several letters have been pasted into the book.

The book is badly water damaged, and many letters are illegible in part or in whole. Every effort has been made to locate fully legible documents elsewhere in the ESBCo record group that duplicate the information in this letterbook. Less than 10 percent of the documents in the book have been selected. The index has also been selected to provide information that may otherwise be inaccessible.

Additional letterbooks containing items pertaining to the development of Edison's storage battery can be found in the National Phonograph Company Records and the Edison Ore Milling Syndicate Records (Company Records Series).

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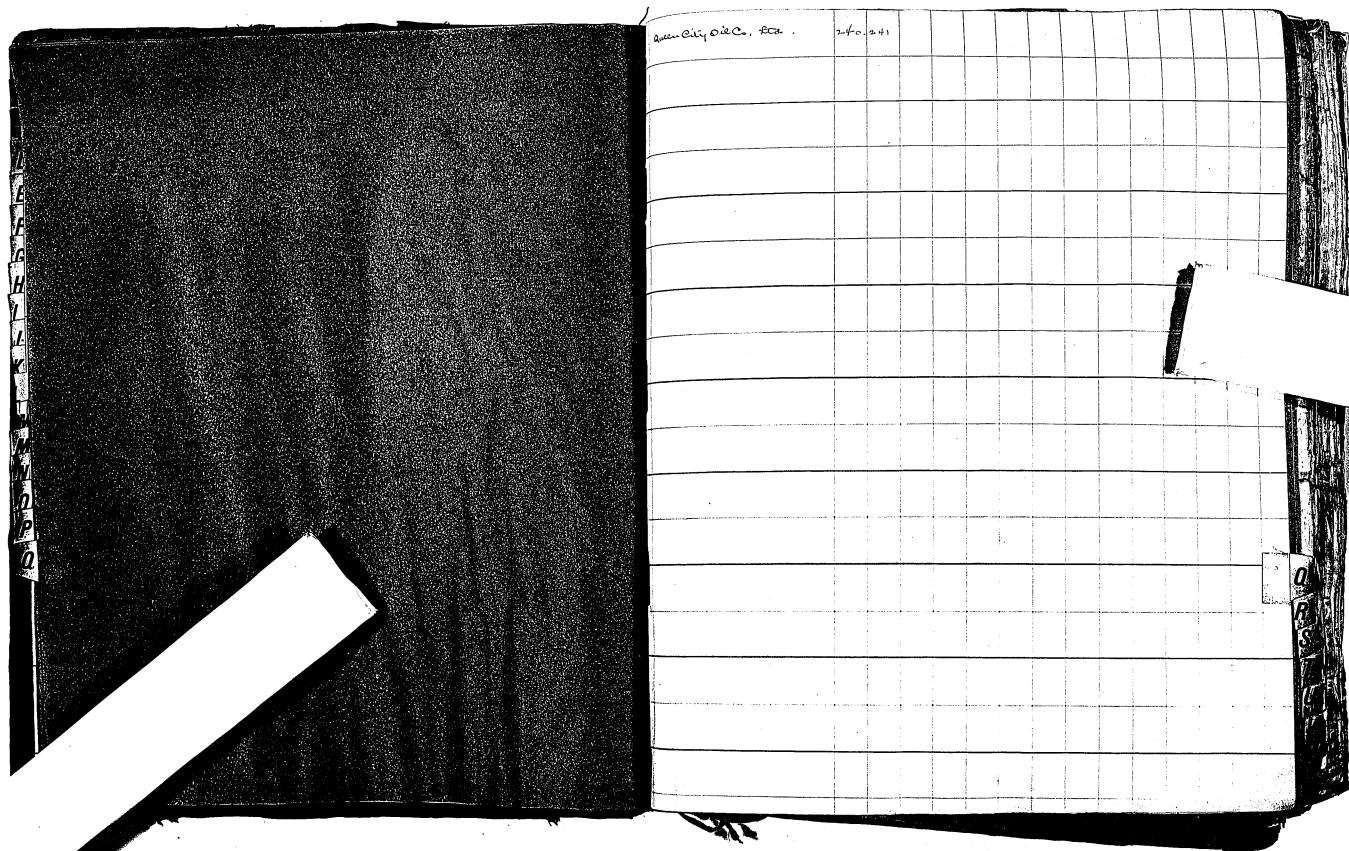
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✓
Feb. 1/05

Mr. V. Karapetoff,
Cornell University,
Ithaca, N. Y.

Dear Sir:--

Replying to yours of the 13th ult., which has been delayed owing to Mr. Edison's illness, beg to state that the storage battery is undergoing certain mechanical changes at present, and we would prefer not to send cells at this time, as we believe the new type of cell will be very much better in every respect than those which we have been manufacturing.

Very respectfully,
J. P. Watson, Jr.,
General Manager, Edison Storage Battery Co.,
New York City.

V.P.

Feb. 4/05.

S. Bergmann, Esq.

Berlin, Germany

Dear Sir:-

Some days ago we received your cablegram which was as follows: "Would you consider rubber cans somewhat flexible if cost ninety cents including cover", and we have been compelled to hold it, as Mr. Edison was not in condition to be seen.

We have, however, seen him to-day and he states as follows: "Rubber cans no good, new welded cans now perfectly

... We are collecting the welded cans and got from 25 ... in strict accordance. Thank you ...

Feb. 9/05

Weston Electric Instrument Company,
Newark, N.J.

Gentlemen--

Replying to yours of the 31st ult. which has been forwarded to us from our Glen Ridge Plant, beg to state that we have had the matter looked into and find that all our measuring instruments have been made by your company, with the exception of one, which came to us on a Waverley automobile.

Mr. Mison says that we will discontinue its use, and that you will be glad to take it back free of charge to you.

V.P.

Gentlemen:--

Replying to yours of the 7th, relative to the 8 and 8 x 8 Class "F" Compressor No. 1123 and 36 x 36 Air Receiver, beg to state that it is Mr. Wilson's intention to resume the experimental work on the air heater as soon as he gets through with the storage battery work. Just when this will be we cannot say at this writing. As soon as we have the installation ready for this work, we shall be glad to have you responsible, and begin what trials you desire to make. It is yours, etc.

[MISDATED BY AUTHOR: CORRECT DATE IS MAY 26, 1905]

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May 26th, 1904

Col. George M. Studebaker,
South Bend, Indiana.

Dear Mr. Studebaker:

Your letter of the 16th inst. received,
and I am gratified to hear you express your confidence in
the future of my battery, and I in turn feel sure that its
adoption by your Company will be to our mutual advantage.

I have found it necessary, in order to attain the
best results, to increase the dimensions of the various cells
and enclose herewith two small sketches giving the dimensions
of the several new types designed to take the place of the
E-10 and E-27 types.

The voltage of the new cell will be 1.2 volts
which you will note is practically the same as before.

At present, it is impracticable to definitely just
upon the recent manufacture of the cell will be improved,
but I believe that we can furnish you with whatever cells you
will require for fully spring testing, and without having any
further trouble, and I think that you will find them to be

Col. George M. Studebaker - 2.

batteries at that time in order to hold the Spring trade.

Trusting that the above will give you the information that you desire, I am, with kindest regards -

Yours very truly,

Wm. C. Edwards

Aug. 7, 1905.

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January 31, 1906.

Gold Car Heating & Lighting Co.,
17 Battery Place,
New York, N.Y.

Gentlemen:-

Your favor of the 2nd ult. was duly received in reference to the termination on November 20th, 1905, of the agreement between your company and the Edison Storage Battery Company, which provided for exclusive handling by you of the Edison batteries for train lighting on steam railroads in the United States. The Edison Storage Battery Company will, of course, be glad at all times to recognize that part of the agreement which you call attention, namely, that it "will continue to sell the batteries to the Gold Car Heating & Lighting Company for a period of five years thereafter, commencing November 20th, 1905, at a price as low as any other company will sell to any one firm."

Feb'y. 14, 1906.

The Edison Storage Battery Company agrees to sell the Adams Express Company fifty (50) sets of batteries, size K 18, sixty-two (62) cells each. Price ten (\$10) dollars per cell f.o.b. Glen Ridge, N. J. Delivery in seventy-five (75) days from date of order. Batteries to be shipped and paid for as fast as completed.

The Edison Storage Battery Company guarantees the mechanical construction of these batteries for one year, and at the end of one year, if necessary, will replace the positive plates for the entire battery, and will take to the same that part of the battery which will attention to the Edison Storage Battery Co. The Edison Storage Battery Co. will sell the Edison Storage Battery Co. for a period of five years there-

THOMAS A. EDISON
PresidentFRANK L. DYER
Vice-President and General CounselE. G. DODGE
General ManagerJ. F. MILLER
Secretary-Treasurer

EDISON STORAGE BATTERY CO.

474

Tel. plant, 908 Orange

ORANGE, NEW JERSEY

September 22, 1910.

H. E. Dick, Esq.

416 1/2 West Jackson Boulevard
Chicago, Ill.

The Board of Directors of the Edison Storage Battery Company, a corporation of New Jersey, on the 16th day of September, 1910, do hereby resolve and declare that it is advisable that the capital stock of the company be increased from \$1,000,000 to \$3,000,000, said additional stock to be like in all respects the present stock of said company. And they hereby call a meeting of the stockholders to be held at the company's office, corner of Valley Road and Lakeside Avenue, West Orange, N. J., on Tuesday, the 4th day of October, 1910, at eleven o'clock A. M., to take action upon the above resolution.

Attest

H. F. Miller

Secretary.

- 3 -

You are undoubtedly aware of the unlimited field for a light reliable storage battery, such as we have and we therefor think you will agree with us that the future looks exceedingly promising.

Yours very truly,

H. B. Hilding
Treasurer.

Dear Sir:

I have the pleasure to acknowledge the receipt of your letter of the 10th inst. in relation to the proposed sale of the rights in the Hilding Storage Battery Company, Inc. to the Hilding Storage Battery Company, Inc. I am sorry that I am unable to give you a more definite answer at this time, but I am sure that you will understand the necessity of this delay.

I am, Sir, very respectfully,
Yours very truly,
H. B. Hilding
Treasurer.

December 17th 10.

Dear Sir:

Replying to your letter of the 10th instant would say that when Mr. Edison started his experiments to perfect the battery he borrowed \$500,000. and gave a Bond and Mortgage for the money on the Company, which he organized with one million dollars capital. The whole of the million was issued to Mr. Edison for the purpose of making the battery. The report of the Patent Office of the UNITED STATES is to the effect that the Edison battery is the best of the kind now in use.

[illegible]

been in the hands of the public one and one-half years Mr. Edison decided that they were not sufficiently perfect to achieve what he started to achieve, to wit: production of a perfect storage battery to displace horses in cities.

He then closed his works and started again, and after three years produced the present battery, which he knows will be successful; and also devised and produced a large variety of special machines and processes, every dollar of the cost of which was loaned the Company by Mr. Edison.

After the works had been running one year, ^{used}
a meeting of the Stock-holders was called. The report
of the ^{financial} accounts, Lybrand, Ross Brown &
Wentworth of New York and the ^{presented}
^{to the stockholders}

1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

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- 3 -

works will be exceedingly profitable and that in addition to dividends, the experimental account will be wiped out.

The interest on the Bonds is six per-cent and they mature in 1917.

Also all future inventions in storage batteries made by Mr. Edison are the property of the Company.

Yours very truly,

J. H. P.
Treasurer.

424
426

May 1st 1911.

A. I. Glymer, Esq.,
Van Wert, Ohio.

Dear Sir:-

Yours of the 25th ultimo received.

You are right about the Exide owning stock in
electric vehicle concerns. There are two that we

I know of, one of which is the Woods Co. of

Ohio. The other is the Exide Co. of

Ohio. The Exide Co. is the one that we

are now advertising as we are

about to start a new line of

vehicles. The Exide Co. is the one that we

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about to start a new line of

426
440

June 13th 1911.

Mr. A. I. Clymer, Esq.,

Van Wert, Ohio.

Dear Sir:-

Replying to your letter of the 5th instant Mr. Edison directs me to write you that the reporters got things mixed. We are developing a type of battery with smaller tubes for use in portable power which requires smaller cells and can be charged at high rate of rate and is not subject to delivery of the acid.

This type of vehicle for use of butchers, greengrocers, etc., and which can be sold for about \$700.00. It will require several months to get machinery to make this type.

Yours very truly,

Secretary-Treasurer.

560
583

June 3, 1913.

A. E. Clymer, Esq.,
Vandalia, Ohio.

Dear Mr. Clymer:-

Your letter of the 28th ultimo received.

The new buildings are three-quarters finished. We are manufacturing about one thousand cells daily.

We are furnishing some batteries for headlights; the General Electric Company are experienced along this line.

Bench is doing a good business steadily increasing.

• making \$30,000 to \$35,000

The General Electric Company

First

August 19, 1913

Mr. Paul H. Cromelin,
Thomas A. Edison, Ltd.,
25 Clerkenwell Road,
London, E. C. 4, England.

Dear Mr. Cromelin:-

This is to notify you that I hereby terminate the
arrangement heretofore had with you and set forth in a letter
dated November 9, 1911 to you and signed by Mr. Dyer, whereby
you are to receive certain sums on calls of Edison Storage
Co. by Mr. J. F. Monnet in England and France.

Very truly,

J. F. Monnet

January 28, 1914.

Messrs. J. Stone & Co. Ltd.,
Deptford, England.

Gentlemen:

In my letter of October 9, 1913 to your Mr. W. R. Preston, I submitted a proposition to enter into a contract with you relating to my alkaline storage cells for car lighting on railways, which proposition was to be held open for ninety days from the date of said letter. This proposition has not been accepted by you and the time for such acceptance has expired.

As a result of negotiations with your representatives, however, I am sending to you duplicate copies of a proposed agreement between you, Messrs. Stone & Co. Battery Company and myself. I am sure that you will deliver to me the duplicate of this agreement. If this proposed agreement is not accepted by you, I will have to withdraw the same and will not be able to take any further action. I am sure that you will deliver to me the duplicate of this agreement. If this proposed agreement is not accepted by you, I will have to withdraw the same and will not be able to take any further action.

Yours faithfully,
J. Stone & Co.

June 1, 1914

Messrs. J. Stone & Company, Limited,
 London, England.

Gentlemen:-

As the result of further negotiations with your representative, Mr. Walker, I submit to you three like copies of a proposed agreement between you, Edison Storage Battery Company and myself, and will hold open for your acceptance and signature. The agreement is dated July 10, 1914. In this proposed agreement it is stipulated that you will deliver to me on or before July 10, 1914 two like copies executed in due form on behalf of your company. I will have one copy executed on behalf of Edison Storage Battery Company. All three copies shall be held by me until the 10th day of August, 1914, when I will deliver them to you.

The above is a copy of the proposed agreement. It is submitted to you for your consideration. If you are in favor of the agreement, please sign and return the copy to me. If you are not in favor of the agreement, please return the copy to me with your reasons therefor. The agreement is subject to the approval of the Board of Directors of the Edison Storage Battery Company.

October 14, 1914.

A. I. Clymer, Esq.,

Van Wert, Ohio.

My dear Mr. Clymer:

Replying to your letter of the 9th instant I beg to enclose a copy of our last balance sheet dated June 30th 1914. The deficit shown thereon is accounted for by the fact that we wrote off a large portion of our Patent and Experimental accounts.

As to the use of auto trucks by the foreign nations at war, they consist entirely of gas propelled vehicles.

Answering your inquiry "Is there a considerable demand for the Edison battery for submarines". I would say no; but we have cells on test at the Brooklyn Navy Yard, and hope to get some good orders. Mr. Ford is still experimenting on the low priced electric car.

Electric and other truck business shrunk 50% until last week when many orders for gas trucks were received from abroad. We are running about 50% of capacity.

Yours very truly

Franklin D. Roosevelt

March 15, 1915

F. J. Lisman & Company,
50 Broad Street,
New York, N. Y.

Gentlemen:-

We are willing to make the following modification of
your contract with us dated January 10, 1914:-

(a) The term of the contract shall be considered as
beginning March 1, 1915 instead of January 1, 1914. The ex-
isting period of the contract will there-
fore be extended to March 1, 1915 instead of the 31
of December, 1914.

The minimum purchase of 4-10 calls or their

equivalent in cash or other property to be paid

at the

(2)

During the six months ending February 28, 1918	8250 A-10 cells
During the six months ending August 31, 1918	18750 A-10 cells
During the six months ending February 28, 1919	13750 A-10 cells
During the six months ending August 31, 1919	19250 A-10 cells
During the six months ending February 28, 1920	19250 A-10 cells
During the six months ending August 31, 1920	27500 A-10 cells
During the six months ending February 28, 1921	27500 A-10 cells
During the six months ending August 31, 1921	35750 A-10 cells
During the six months ending February 28, 1922	35750 A-10 cells

(3)

During the six months ending
August 31, 1924

35760 A-10 cells

During the six months ending
February 28, 1925

35760 A-10 cells

This modification of the contract is by mutual request and agreement, and any and all defaults in the matter of purchases required under the contract prior to February 28th, 1916 and any damages arising therefrom are hereby excused and remitted.

We are sending you this letter in duplicate. Will
kindly return one copy to us with your acceptance noted.

Very truly yours,

ALCOH STORAGE BATTERY

By *[Signature]*

December 7, 1915.

A. I. Clymer, Esq.,
Van Wert, Ohio.

My dear Mr. Clymer:

Yours of the 4th instant received.

Enclosed find copy of Annual balance sheet as requested. As to the reason the battery is not used in pleasure vehicles, we have found it is due to the manufacturers putting in the cheapest lead battery that they can get, thus reducing the gross price of their vehicle and obtaining the most profit out of their product.

They care nothing about the merits of a battery, neither do they care about the trouble the public will have. All they seem to want is the money.

The same reason applies to ignition and starting batteries. Garages will not sell our battery because they lose renewal sales at a high profit if they do. In this case the public is outrageously swindled.

However, we are now increasing our sales in every direction where merit counts, such as dock and industrial trucks, in which everything is Edison: regular trucks, mine locomotives, mining lamps, wireless plants on steamers, railroad car lighting etc. etc.

Yours very truly,

Treasurer.

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END

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